

Calhoun: The NPS Institutional Archive
DSpace Repository

Theses and Dissertations

1. Thesis and Dissertation Collection, all items

1972

Antimissile defense: the United States - Soviet dialogue, 1960 to 1969.

Eldredge, Howard S.

Fletcher School of Law and Diplomacy

<http://hdl.handle.net/10945/15988>

Downloaded from NPS Archive: Calhoun



<http://www.nps.edu/library>

Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community. Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

Dudley Knox Library / Naval Postgraduate School
411 Dyer Road / 1 University Circle
Monterey, California USA 93943

**ANTIMISSILE DEFENSE:
THE UNITED STATES-SOVIET DIALOGUE
1960 TO 1969**

HOWARD S. ELDREDGE

Antimissile Defense:

The United States-Soviet Dialogue, 1960 to 1969

A Thesis

Presented to the Faculty

of

The Fletcher School of Law and Diplomacy

by

Howard S. Eldredge
//

In partial fulfillment of the requirements for the
Degree of Doctor of Philosophy

1-11-97

Curriculum Vitae

Name: Howard Sunderlin Eldredge

Personal Data:

Date of Birth: 31 December 1937

Place of Birth: Los Angeles, California

Marital Status: Married to the former Michele Luby of McLean, Virginia. One child, Howard Sunderlin, Jr., born 1965.

Education:

Arcadia High School, Arcadia, California; 1951-1955

Duke University, Durham, North Carolina; 1955-1957

Miami University, Oxford, Ohio; 1957-1959, Bachelor of Science, Phi Beta Kappa.

The Fletcher School of Law and Diplomacy, Medford, Massachusetts; 1965-1967 and 1970-1972, Master of Arts (1966) and Master of Arts in Law and Diplomacy (1967).

Employment:

United States Navy, 1959-present. Served in destroyer USS Power (DD-839), submarines USS Bonefish (SS-582), USS Requin (SS-481), USS Argonaut (SS-475), USS Sirago (SS-485), and USS Blueback (SS-581) and on the staff of Commander Submarine Division 13.

Present Position: Commanding Officer, USS Barbel (SS-580), Fleet post Office, San Francisco, California 96601.

Permanent Home Address: 600 Vaquero Road, Arcadia, California 91006

Preface

Man has always sought to employ military threats short of actual conflict to achieve political objectives. The initial response of statesmen to the development of nuclear weapons was to view them as more significant in terms of their political value than previous weapons had proven. This perception is relevant today in that decisions of nations regarding the value of acquiring nuclear weapons are largely dependent upon political rather than military considerations. However, the passage of time has demonstrated that the political utility of nuclear weapons is not as significant as was initially thought. The vastly increased destructiveness of these weapons is considered by some to have made the threat of their use credible only for defending a state's perceived vital interests. In the extreme view, the only political utility of such forces is to nullify and neutralize the political value of similar forces deployed by potential opponents. However, even those who hold to this belief concede that a nuclear stalemate could result in some advantage to either one of the superpowers depending on the possession of other conventional military forces and the mutually perceived will to use them for limited objectives. Nevertheless, in the absence of absolute parity in strategic weapons systems, the real or alleged differences in such systems affect both the political perceptions of opposing states and third powers. It is this marginal political utility that the

creation of uncertainties influences.

Political use of military capabilities is a highly subjective exercise. It involves a nation's own assessment of the military balance and its trends and its evaluation of how its potential opponents view the same or slightly different data and the perceived will of the parties to employ their forces. Modern intelligence devices have brought force level estimates closer to being objective realities. The great remaining uncertainties are found in attempting to qualitatively assess the relative military capabilities of each potential opponent and to determine the probable tactical employment of his forces. Since almost all strategic weapons systems have never been tested in combat conditions, great uncertainties exist about the quality of a nation's own forces, not to mention those of its potential opponents. It does not follow, however, that these uncertainties are balanced between potential adversaries. Uncertainty may be greater for one side than the other. This is the situation where military threat is most likely to achieve political advantage by exploiting or even increasing the opponent's uncertainties. Several options are open to states which induce uncertainty with respect to strategic weapons systems:

1. Assertion of the possession of military capabilities or of forces which employ these capabilities;
2. Taking political or military actions which presuppose the possession of military capabilities;
3. Demonstration of partial military capabilities in an

attempt to induce potential adversaries to conclude that full capabilities exist;

4. Violent or non-violent actions which imply confidence in claims of strategic capabilities where acquiescence or ineffectual resistance by potential opponents would suggest that they share the perception of the claimed capabilities.

To the extent that strategic weapons systems support these options, they are seen to possess political utility. In the post-Stalin period, particularly during the period of Nikita Khrushchev's leadership, the Soviet Union employed these options either singly or in combinations, notably in the creation and the manipulation of the "Bomber Gap" and the "Missile Gap."

A policy of manipulating uncertainties entails major risks and costs. At one extreme, it may result in a nuclear exchange. At the other, it may be completely overlooked by the potential opponent. In between, it may result in an unanticipated response by the opponent which requires an abrupt retreat with its attendant political costs, such as occurred during the Cuban Missile Crisis of October 1962, or it may result in significantly greater inferiority such as followed the "Bomber Gap" and "Missile Gap." Further, it may strengthen the arguments of those in the opposing state's bureaucracy who are arguing for policies at odds with the threatening state's broader interests, but not directly

related to the threat being made.

Politically, types of strategic weapons systems may be employed in a kind of tacit or explicit bargaining process with a potential adversary. Thomas C. Schelling has described such a process as a "dialogue of competitive armaments."¹ Such a dialogue may involve more talking at a potential opponent than talking with him. Elements employed in a dialogue of competitive armaments include the release of selective information about technical characteristics or operational capabilities of existing or potential weapons systems; increased or decreased budgetary support for those systems; announcements of adjustments in projected or existing force levels; statements of support for related systems by influential officials; and announcements concerning the intended missions for those forces. Although these elements have important functions in domestic national security policy deliberations, they also may be expected to influence the planning of potential adversaries. Since a major input to military planning involves responses to perceived threats to a state's security, armament decisions are to some extent reactive. Considerations other than the probable reaction of potential opponents may be more important in individual military planning decisions, but the reactive element must be anticipated. For this reason, in addition to the primarily

1. Thomas C. Schelling, Arms and Influence, (New Haven and London: Yale University Press, 1966), pp. 260-286.

domestic elements outlined above, a dialogue of competitive armaments may include direct or tacit statements or actions whose primary goal is to influence the perceptions of potential opponents. Typical examples include overt linkage of a nation's own weapons systems as counters to those of potential adversaries, comparisons of opposing force levels to advocate increases in a nation's own forces, and statements which attempt to induce potential opponents to alter their apparent force posture intentions.

Such a dialogue is more than an exercise in interstate communications. Where strategic weapons are involved, the potential survival of the state is at stake. In this case, the dialogue serves to establish and reinforce the state's commitment to defend itself against real or perceived military threats. Additionally, since modern weapons are so closely linked with advanced technological competence, important prestige considerations are involved. Therefore, the dialogue may be expanded to include statements or actions intended to influence third parties. Finally, the costs of modern weapons systems, particularly those involving strategic offensive and defensive forces, insures that vital state interests are involved in such a dialogue. The fact that a dialogue exists represents an attempt to keep those costs within absolute limits.

Following the development and deployment of the intercontinental ballistic missile and the submarine-launched

ballistic missile, both Soviet and United States spokesmen acknowledged that the next military development and procurement plateau to be surmounted involved antimissile defenses to counter these weapons. To a limited extent, the decisions to deploy such defenses have been tentatively made. Limited defenses are being built and extensive research and development programs conducted while each side probes and examines the other's future intentions. In the latter half of the decade of the 1960's, increasing prospects for arms limitation agreements involving these systems further complicated the issue as did the development of improved offensive technology, notably in the form of penetration aids and multiple warheads.

The purpose of this paper is to outline the questions incident to the development of antimissile defense systems, to examine the United States-Soviet antimissile defense dialogue as a case study of the use of weapons systems to manipulate military technological developments for political purposes, and to evaluate the role of antimissile defense systems in larger questions of national strategies.

Table of Contents

Chapter 1:	The Antimissile Defense Debate	1
Chapter 2:	The Soviet-United States Dialogue, 1960-66	25
Chapter 3:	Toward Arms Control: Initial Bargaining, December 1966-September 1967	73
Chapter 4:	The Sentinel Period: September 1967-March 1969	139
Chapter 5:	From Safeguard to Helsinki: March-November 1969	212
Chapter 6:	Conclusions	307
Appendices		328
Bibliography		338

Chapter 1

The Antimissile Defense Debate

Before analyzing the dialogue on antimissile defense between the United States and the Soviet Union, it is important to set down some background information. The political dialogue to be discussed takes place against a background of technological factors, system missions, and widely varying opinions on the wisdom of system deployment.

Ballistic missiles in flight pass through three general phases: the boost phase where they are launched in powered flight upward through the atmosphere and downrange to thrust termination and reentry body release above the atmosphere; the ballistic phase where the reentry body moves downrange in a free-fall trajectory above the atmosphere; and the reentry phase back through the earth's atmosphere to the target.¹ From the standpoint of the defense, ballistic missiles can be attacked during each of these phases. Each poses special problems and has some advantages over the other two. Attack during the boost phase requires rapid reaction time and high interceptor acceleration for the defensive system. It requires placing the defensive system aboard satellites, ships, or aircraft along predicted flight paths as close to

1. For a particularly detailed overview of ballistic missile flight paths and advanced guidance technology, see D. G. Hoag, "Ballistic-missile Guidance," in B. T. Feld, T. Greenwood, G. W. Rathjens, and S. Weinberg, eds., Impact of New Technologies on the Arms Race, (Cambridge and London: The M. I. T. Press, 1971), pp. 19-108.

potential enemy launch points as possible. The primary advantage of boost phase intercept is that it allows for interception of the offensive missile before penetration aids and multiple warheads are deployed. Vulnerability of the defensive platform to enemy counterattack prior to ballistic missile launch and system cost are the primary disadvantages.

Exoatmospheric (above the atmosphere of the earth) attack during the free-fall phase allows for detection, evaluation of the threat, and interceptor launch over a matter of a few minutes rather than seconds. During this phase, the opportunities for offensive deception are greatest, a factor which is countered by the fact that nuclear effects allow for the defense to employ large warheads with increased tolerances for miss distances. Area defense systems employ exoatmospheric intercept.

Point defense systems intercept incoming warheads during the reentry phase. The same characteristics of rapid reaction time and high interceptor acceleration common to boost phase interceptors are required for point defense. The main advantage of this type of intercept is that it allows the increasing density of the atmosphere to remove the majority of offensive penetration aids or to separate them from the actual warhead. The primary disadvantage is that low yield defensive warheads are required to avoid self-destruction which in turn requires high accuracy. Larger yield warheads could be used in point defense of non-populated

areas, such as offensive missile bases. However, point defense of cities would require comprehensive shelter and civil defense programs if other than low yield warheads were to be employed. The relative complexity of the individual defensive missiles makes point defense generally more expensive than area defense.

To be effective, antimissile defense must fulfill a number of functions. First, the defensive system must detect incoming warheads as they approach the area to be defended. Although this function may theoretically be accomplished in a variety of ways, the most likely solution involves the use of radar. Modern, low frequency, high power radars can acquire most incoming objects as they enter the line of sight of the radar. Due to the earth's curvature, the range of this acquisition will be dependent upon the trajectory of incoming objects. For the normal, minimum energy trajectory where the maximum altitude is about 800 miles, initial detection could take place at about 2000 miles, approximately 10 minutes prior to the time of impact at the intended target. For lofted trajectories, the initial detection range may be greater. For depressed or fractional orbital trajectories where the objects remain below an altitude of 100 miles, initial detection could be made at a range of less than 800 miles, about 3 minutes prior to impact. Further development of "over the horizon" radars will increase initial detection ranges. At initial detection ranges, the defense may not be able to determine what is coming, only that something is

approaching. At this point, the attacker has lost most of the element of surprise. Since the tracking radars are linked to high-speed computers, the projected flight track and impact point can be determined quickly. If the defensive system is of the area defense type which relies on exoatmospheric interception, the antimissile missile would be launched as soon after initial detection as track determination is completed.²

The second problem for the defense is to discriminate between real incoming warheads and false ones. The sophisticated attacker must be expected to attempt to saturate the defense with penetration aids and multiple warheads to confront it with more incoming objects than it has defensive missiles. Among the types of penetration aids discussed in open sources are chaff, balloons, booster rocket fragments, heavy and light decoys, electronic countermeasures, and blackout effects.³

Chaff is fine metal wire cut to one-half the wavelength of the defensive radar. The wavelength can be obtained by intercepting and analyzing signals from the defensive radar.

-
2. If the defensive missile has a "loiter" capability - the ability to slow or coast to conserve fuel above the atmosphere and to alter its course during this period to take advantage of further radar tracking - early launch has the dual advantages of early attack while reentry bodies are closer together and allows more time for re-attack if the initial intercept is unsuccessful.
 3. Richard L. Garwin and Hans A. Bethe, "Anti-Ballistic Missile Systems," Scientific American, March 1968, p. 27.

The power and mission of these radars insure that their signals will be radiated outside the borders of the defended nation. Dispersed over a large volume of space and traveling at the same velocity as the reentry body, chaff drastically increases background noise seen by the radar. The key to effective chaff employment is even distribution in space. In this case, it would not be possible for the defense to know where the warhead is located within the chaff cloud and it would be forced to expend several defensive warheads to cover the entire cloud. Chaff would not be as effective within the atmosphere since it is far less dense and would become rapidly separated from the warheads.

At the present time, balloons appear to be the best exoatmospheric penetration aids.⁴ They are only effective in the area above the atmosphere and can be made of thin plastic covered with metal foil to make their radar cross-section approximate that of a warhead.⁵ Inflated and ejected as soon as the offensive missile clears the earth's atmosphere, the primary difficulty with balloons is to put them on trajectories which terminate at credible objectives. Properly programmed, the defensive system's computers could reject those incoming objects which lack such impact points.

4. Aviation Week and Space Technology, 20 July 1970, p. 20.

5. The radar cross-section of an object is defined as the electronic characteristics of the radar returns from that object. Radar cross-sections of reentry bodies may be obtained through instrumented testing over a range of variables to reduce technological uncertainties.

However, if the defense is an area defense system which seeks to protect the entire nation, even objects without "credible objectives" must be taken under attack. Due to their low density, balloons will be drastically slowed on reentering the atmosphere and will separate from the warhead and burn.

Booster rocket fragments can be deliberately created by blowing up the last stage of the booster rocket after burn-out. In theory, these fragments could be deliberately sized to approximate the radar cross-section of the warhead or allowed to disintegrate into randomly sized fragments. In practice, booster fragments have proven somewhat counterproductive. The heavy debris has tended to cluster around the warhead "attracting radar attention" while the light fragments are easily sorted out by computer programming based on their radar cross-section.⁶ Like chaff and balloons, booster fragments are less dense than warheads and become separated on reentry. A defensive system based on point defense could take advantage of the phenomenon known as "atmospheric sorting" to reduce numbers of objects it is confronted with. Although they are carried at a significant price in payload weight, heavy decoys whose radar cross-section and aerodynamic characteristics approximate those of the warhead could be carried to confuse and attempt to saturate point defenses. Electronics countermeasures could be included at a lesser penalty in payload weight to jam or

6. Aviation Week and Space Technology, 20 July 1970, p. 20.

deceive defensive radars.

Blackout effects are slightly similar to those of chaff except that objects behind blackout effects cannot be detected by the defensive radar, while objects outside a cloud of chaff can be detected. Self-blackout can result from the detonations of the warheads of defensive missiles. Other blackout may be the result of so-called "precursor" attacks in which the attacker deliberately detonates large yield warheads above the atmosphere to confuse the defense and allow the bulk of the remainder of the attack to penetrate the defense.⁷ Radar blackout is caused by the large amount of free electrons released by a nuclear detonation. These free electrons are the result of the ionization of atoms and molecules in the thin upper atmosphere. Ionization is caused by the intense heat of the fireball and the release of beta radiation by the radioactive debris of the detonation. Ionization effects are more pronounced at the lower frequencies which provide the best long range radar performance. Attenuation varies inversely with the square of the radar frequency. Scientific testimony in 1970 indicated that the Soviet "Hen House" radar had an operating frequency of about 150 megahertz and that the proposed United States Perimeter Acquisition Radar (PAR) would operate at 450 megahertz.⁸ Using the above outlined relationship, the "Hen House" is

7. George A. W. Baehm, "Countdown for Nike-X," Fortune, November 1965, p. 133.

8. Aviation Week and Space Technology, 20 July 1970, p. 20.

nine times as vulnerable to blackout effects as is PAR. For the reasons outlined above, discrimination is perhaps the most difficult aspect of defense against ballistic missiles, particularly for area defense systems. The major technological uncertainties are computer programs capable of dealing with saturation attacks and discriminating between the radar "signatures" of actual warheads and those of penetration aids.

The third function is launching the interceptor missile. For an exoatmospheric intercept, the launch may precede final discrimination, particularly if the interceptor missile has a "loiter" capability. An early initial launch may allow the defense to employ "shoot-look-shoot" tactics to conserve interceptors by withholding subsequent launches until the results of previous interceptions are known.⁹ Since point defense delays launch to take advantage of atmospheric sorting where the heavier warheads fall faster than the decoys, discrimination is not as crucial. An additional factor is that the higher frequency radars associated with point defense systems are less vulnerable to blackout effects. Delayed launch requires missiles with rapid response time, high thrust, and a capability to climb rapidly to the highest possible intercept altitudes. "Shoot-look-shoot" tactics may also be employed by point defenses.

9. Aviation Week and Space Technology, 23 October 1967, p. 66.

Finally, the defense must destroy the incoming warheads. In theory, defensive missiles could employ either nuclear or conventional warheads. The capability of even a low yield nuclear detonation to destroy an incoming warhead is virtually certain if the detonation takes place in close proximity to the incoming warhead. However, if such a perfect intercept could be reliably achieved, a conventional antimissile warhead would be just as lethal without producing detrimental electromagnetic effects which degrade radar performance. In practice, such intercepts are not anticipated and nuclear warheads must be used to compensate for reasonable miss distances in actual intercepts. The detonation of the defensive nuclear warhead will produce blast, heat, and radiation. Blast and neutron or x-ray bombardment are primary kill mechanisms.¹⁰

Point defense systems which employ intercept within the earth's atmosphere depend upon neutron bombardment and blast to destroy incoming warheads. Since point defense detonations occur fairly close to the defended targets, it is necessary to keep the yield of the defensive warhead as small as possible which in turn makes close miss distance intercepts mandatory. Neutrons can penetrate matter of any kind, but their intensity is rapidly attenuated within the atmosphere. At close range, they will penetrate the incoming

10. Garwin and Bethe, "Anti-Ballistic Missile Systems," Scientific American, March 1968, p. 26.

warhead's heat shield and outer jacket and enter the nuclear material. The resulting fissions in this material may cause sufficient heat to deform the precisely designed shape of the nuclear material and to cause the warhead to fall as a dud.¹¹ If the neutron flux is high enough, it may cause premature detonation of the incoming warhead.¹² To reduce the effectiveness of this kill mechanism, the attacker may increase the shielding of his warheads which reduces their yield for a given weight. Blast effect is most pronounced at lower altitudes. Shock loading of warhead components is the primary kill mechanism. It can be countered by designing the warhead to have extraordinary structural strength at a penalty of increased weight. Additionally, blast may deflect the warhead from its intended flight path causing it to miss its target.

Above the atmosphere, the area defense system depends on x-radiation for its kill mechanism. Megaton-range detonations emit most of their energy release as x-rays.¹³ The intervening atmosphere provides adequate protection for the population below. Low fission output of radioactivity to reduce radar blackout is also a desirable feature for this

11. Time, 26 May 1967, p. 46.

12. The New York Times, news article by Wallace Turner, 25 July 1971, p. 41.

13. Time, 26 May 1967, p. 46. High energy x-rays constitute as much as 80 per cent of the energy output of a megaton-range detonation. X-ray output may be increased by decreasing the amount of Uranium-238 in the warhead's outer shell and using more tritium.

warhead. When x-rays strike an incoming reentry vehicle, a portion of the heat shield is turned into a plasma and a shock wave is created within the warhead which may destroy the heat shield causing the warhead to burn up on reentry. If the internal shock wave is strong enough, it may destroy internal components or set off the high explosive booster. X-rays will not alter the radar characteristics of the incoming warhead, so the defender will not know whether he has succeeded in destroying it until the warhead reenters the atmosphere.¹⁴ As was true for other nuclear effects, warhead shielding and hardening can reduce the effectiveness of x-rays as a kill mechanism. Again, reduced warhead yield is the key trade-off.

Although both the Soviet Union and the United States conducted high altitude experiments in their last atmospheric nuclear testing series, these tests were far from exhaustive and major extrapolations are required to predict nuclear effects in and above the atmosphere. Underground tests and laboratory simulations have been carried out, but uncertainties still abound.¹⁵

Contemporary deterrence theory assigns two chief functions to strategic weapons: "assured destruction" and "damage

14. Garwin and Bethe, "Anti-Ballistic Missile Systems," Scientific American, March 1968, p. 27.

15. For a highly detailed technical discussion of nuclear effects, see R. Pay, "U.S. ABM Would Imperil Test Ban Treaty," Technology Week, 20 March 1967, p. 14.

limitation." Former Secretary of Defense Robert S. McNamara defined assured destruction as the ability "to inflict at all times and under all foreseeable conditions an unacceptable degree of damage upon any single aggressor, or combination of aggressors - even after absorbing a surprise attack."¹⁶ Damage limitation is the ability "to reduce the potential damage of a nuclear attack upon the United States through the use of both offensive and defensive weapons."¹⁷ Depending upon their assigned mission and pattern of deployment, antimissile defense systems may contribute to the fulfillment of either the "assured destruction" or the "damage limitation" function or a combination of the two. Missions for antimissile defenses which have been discussed fall into the following categories: damage limitation for the entire nation if deterrence fails, protection against accidental or anonymous attack, protection of offensive missile bases to degrade the advantages of a surprise attack on retaliatory forces, complication of the strategic calculations of potential enemies by creating or exacerbating uncertainties about the probabilities of the success of an attack, and defense of the nation to destroy attacking missiles which survive a disarming first strike by one's offensive forces.

16. Robert S. McNamara, Fiscal Year 1969-73 Defense Program and Fiscal Year 1969 Defense Budget, Department of Defense monograph, 1 February 1968, p. 47.

17. Clark Clifford, Fiscal Year 1970-74 Defense Program and Fiscal Year 1970 Defense Budget, Department of Defense monograph, 15 January 1969, p. 47.

Damage limitation if deterrence fails is the "gut" mission for an antimissile defense system. While this mission is damage limitation for superpower confrontations, it may be a mission of "damage denial" for small power attacks. The anti-China area defense concept of the Sentinel system announced in September 1967 had such a mission. To fulfill this mission, an area defense, possibly augmented with point defense of key cities, is the most likely deployment pattern. The "thickness" of the system may vary according to the amount of damage limitation sought, the strength of the anticipated attack, and the estimated sophistication of the expected attack. The deployment pattern will also be dependent on what elements of the population and resources of the nation are considered most necessary for the continued functioning of that nation.¹⁸

Protection against accidental or anonymous attack could probably be accomplished by a relatively thin area defense system. Although the probability of an accidental attack is low, it is possible. The key question in the evaluation of the validity of this mission is political: does the remote possibility of such a launch warrant the expenditure of several billion dollars by itself? For this reason, this mission is usually treated as a bonus by antimissile defense advocates

18. For a positive analysis of this mission, see Donald G. Brennan, "The Case for Population Defense," in Johan J. Holst and William Schneider, Jr., eds., Why ABM?, (New York: Pergamon Press, 1969), pp. 91-117.

who support other missions. The anonymous attack scenario normally involves an attack by a third power in a period of tension with the aim of exacerbating superpower conflict, possibly acting as a catalyst for a large nuclear exchange between the superpowers. While the possibility of such an attack cannot be rejected out of hand, its likelihood is remote and this mission falls into the "bonus" category.

Protection of offensive missile bases is generally pictured as fulfilling an "assured destruction" function since the mission is to insure the survival of a credible proportion of strategic retaliatory forces against a massive counterforce attack. It does not require the low leakage rate¹⁹ of the first two missions outlined above since it only attempts to protect a portion of the targets taken under attack. The Safeguard system announced in March 1969 employs a combination of area and point defense to carry out this mission, although a recent trend seems to point toward more reliance on point defense.²⁰ Area defenses for this mission have additional functions to protect against accidental and anonymous attacks and to provide some damage limitation for cities located near offensive missile bases.

19. Leakage rate is a proportional probability expression for those incoming warheads which will succeed in penetrating a given antimissile defense system.

20. U.S., Congress, Senate, Subcommittee on Arms Control, International Law and Organizations of the Committee on Foreign Relations, ABM, MIRV, SALT, and the Nuclear Arms Race, 91st Congress, Second Session, (Washington, 1970), p. 603.

By complicating the calculations of adversary strategic planners, antimissile defense systems force potential adversaries to expend additional resources on penetration techniques and devices instead of on destructive power. More importantly, they increase the margins of uncertainty for these planners concerning the range of probable outcomes of a given nuclear attack, particularly if that attack is to be made on the opponent's strategic retaliatory forces. Deterrence is enhanced by these uncertainties since prudent planners are assumed to be less likely to advocate counterforce strikes when the probability of success is more uncertain.

The final mission, defense of the nation against an adversary's residual retaliatory forces after he has undergone a disarming first strike, is the cornerstone of "worst case" planning by the superpowers. Such a mission would require at least an area defense system, probably augmented by point defense of the nation's highest value targets. The function of such a defense is pure "damage limiting." Design and deployment of a defensive system to fulfill this mission would reflect an assessment of which of the adversary's strategic systems were most likely to survive the planned first strike and would maximize its capabilities against those systems.

Given the technical considerations and missions for antimissile defense systems outlined above, a vigorous debate on the wisdom of system deployment has been going on in the United States for over a decade. The debate was primarily

conducted within governmental agencies prior to the decision to deploy the Sentinel system in September 1967. Since then, a similarly intensive debate has been conducted in public sources. While some facets of this debate are highly technical and involve classified security information, the intensity of the debate is thought to have brought most of these questions into the public domain, if only through inference. Although only content analysis of the Soviet press is available in open sources, it is extremely likely that a similar debate has been going on internally within the Soviet bureaucracy. The cost and technological uncertainty inherent in antimissile defense virtually guarantee that it will be a controversial issue in any government. While it is highly unlikely that the Soviet debate is a mirror image of that which has been conducted in the United States, the basic points of argument probably reflect similar positions. An appreciation of these points is essential for an analysis of how the antimissile defense dialogue between the United States and the Soviet Union has been conducted since its inception.

The arguments for the deployment of antimissile defense systems generally stem from the basic philosophical conviction that governments are responsible for defending their citizens against threats to their security if the means for defense are available. This argument holds that even though an antimissile defense system cannot reduce casualties in a nuclear exchange to zero, it is imprudent or even immoral not to deploy a system that may reduce fatalities by millions

or even tens of millions. One end of the spectrum of this argument is represented by Senator Richard Russell's October 1968 statement that "If we have to start all over again with another Adam and Eve, then I want them to be Americans and not Russians - and I want them on this continent and not in Europe."²¹ On a more intellectual plane, it is argued that antimissile defenses that proportionally reduce fatalities and damage to the nation's productive capacity may greatly influence the ability of a society to recover from a nuclear exchange. Another facet of this argument is a reluctance to accept the dictum that nuclear wars are unwinnable. While spokesmen in both the United States and the Soviet Union have endorsed this concept, Marxist-Leninist ideology makes this admission particularly uncomfortable for the Soviets.²²

Antimissile defense advocates attempt to counter the argument that technological complexity will produce extraordinary system unreliability by pointing out that offensive

21. The New York Times, 22 November 1968, p. 9. For the Soviet response to this statement, see "Adam and Eve and the Senator," Izvestia, 26 November 1968, p. 2.

22. Although this doctrinal debate is not as significant as it was during the Khrushchev-Malenkov-Molotov period in 1953-55 before the ouster of the Anti-Party Group in July 1957, it is argued at an esoteric level within the military press. In general, these articles do not argue that present forces are adequate to insure a Soviet victory in a future nuclear war but stress that future technological developments may provide military superiority. While such arguments are a useful bureaucratic tool to press for greater resource allocations for military spending and programs, they also have doctrinal roots.

systems are also basically untested in the anticipated war-time environment. Although this statement is true when taken at face value, the relative uncertainties of system performance can be reduced through somewhat realistic (and highly expensive) proof testing of offensive missile components with the exception of the warhead, which can be proof tested separately underground.²³ Similar proof tests of antimissile defense system radars and missiles in a non-nuclear environment can be made by the United States at Kwajalein and the Soviet Union at Sari Shagan. Since the major technological uncertainties of system performance are dependent upon nuclear effects, these tests are less valid.

Cost-exchange ratios of near unity are put forth by supporters of antimissile defense for systems which have missions which do not require high assurance of impenetrability. In the antimissile defense context, the cost-exchange ratio is normally spoken of as an expression of the cost to reduce the number of fatalities by a given amount versus the cost to produce the same number of fatalities. Systems whose mission requires near zero leakage rates have higher cost-exchange ratios since this defense must be "thicker" to attempt to

23. For example, through May 1970, a total of 60 Titan II, Minuteman I, and Minuteman II intercontinental ballistic missiles had been fired by the United States for the specific purpose of gathering data on system performance and accuracies. U.S., Congress, Senate, Subcommittee on Arms Control, International Law and Organizations of the Committee on Foreign Relations, ABM, MIRV, SALT and the Nuclear Arms Race, 91st Congress, Second Session, (Washington, 1970), p. 621.

offset an offensive strategy which concentrates on a few targets. The expense of sophisticated decoys and countermeasures and multiple warhead systems required to penetrate other than primitive antimissile defense systems is cited as the primary cause of the improvement in cost-exchange ratios when seen from the perspective of the defense.²⁴ In support of this contention, some antimissile defense advocates argue that the Soviet "Galosh" system around Moscow, which has a maximum estimated cost of two billion dollars, forced the United States to spend over five billion dollars to develop and deploy sufficient Poseidon and Minuteman III multiple warhead offensive missiles to insure penetration of those defenses.²⁵

Inherent in basic "flexible response" and "assured destruction" strategies is the implicit notion that the "spasm" nuclear exchange is highly undesirable. Reliable second strike forces; secure, redundant command and control facilities; and stable decision-making organizations have been established to support this apparent conviction by the United States. Proponents of antimissile defense argue that active defenses contribute to such strategies, particularly when employed to defend strategic retaliatory forces. Faced with

24. Donald G. Brennan, "The Case for Missile Defense," Foreign Affairs, April 1969, p. 435.

25. Center for the Study of Democratic Institutions, Anti-Ballistic Missile: Yes or No?, (New York: Hill and Wang, 1968), p. 48.

opposing offensive missile forces which are considered to have some capability against hard targets, such as missile silos, the temptation or imperative to adopt a "launch on warning" strategy is increased.²⁶ Defense of these silos provides some assurance that sufficient missiles to maintain an assured destruction capability can be expected to survive a surprise counterforce attack, thus contributing to overall strategic stability.

Additionally, it is argued that antimissile defenses raise the psychological threshold of nuclear warfare by enlarging the range of uncertainty about the probable outcomes of a nuclear exchange. Given this increased range of uncertainty, strategic planners would be less certain of their calculations which in turn would reduce the chances for reasoned advocacy of initiating a disarming attack. Unquestionably, the existence of antimissile defenses near intended target areas greatly complicates an attacker's operational planning. An early 1968 statement by General Earle G. Wheeler, then Chairman of the Joint Chiefs of Staff, illustrates this point:

If the enemy merely knows that we have an ABM system, whether or not he knows how good it is, how effective it is, what the

26. Even a system of antimissile defense-type radars linked to high-speed computers which could accurately predict impact points of incoming objects and provide an indication of the intensity of an attack would reduce the pressures to "launch on warning."

probability of kill is, he has got to take it into account in his targeting. He cannot ignore it, because otherwise his attack could fail. And if he operates like the average military planner, and I am sure he will, he will throw in a safety factor to make sure he has enough of his resources devoted to any given target. It is a complicating factor in an already very complex equation.²⁷

From their initial conception as ideas on paper, technological developments pass through a gestation period normally characterized by paper feasibility studies, prototype construction, test and evaluation, and system deployment. For complex weapons systems, this period normally requires seven to ten years. While additional study at each stage usually produces improved system performance or reliability, the marginal gains tend to decrease beyond certain points. Advocates of antimissile defense deployment argue that the technology involved in the Nike-X/Sentinel/Safeguard system has developed to a point where deployment is required to allow the technological momentum of the established scientific and managerial cadre to refine and improve the system. Failure to deploy would result in a reduction of the marginal utility of this group and, ultimately, to its dispersal in their view. Prototype research and development will not always reveal significant improvements or problem areas that would result from

27. U.S., Congress, Senate, Preparedness Investigating Subcommittee of the Committee on Armed Services, Status of U.S. Strategic Power, Part I, 90th Congress, Second Session, (Washington, 1968), p. 20.

experience in system deployment and subsequent operation.

The opponents of the deployment of antimissile defense systems have based their argument on three general considerations: a cost-exchange ratio which favors the offense over the defense, the technological complexity and probable effectiveness of the Nike-X/Sentinel/Safeguard system, and the probability that deployment will exacerbate pressures for a superpower arms race which will not add to the security of either power.²⁸

The cost-exchange ratio argument is based upon the deterrence theory assumption that "assured destruction" must be expected to incur an arbitrary number of fatalities on an opposing nation to be credible. While this number is based on assumptions, it is held that it is the fear of incurring a finite number of deaths that deters a potential enemy from attacking. The necessary complexity of antimissile defense systems and the requirement to expend at least one defensive missile to destroy each incoming reentry vehicle are considered to favor the offensive forces permanently, barring a major technological breakthrough. Implicit in this argument

28. Much of the antimissile defense deployment debate in the United States has reflected the general public dissatisfaction with the war in Vietnam and large expenditures for military hardware. The absolute cost argument is typical of this sentiment. While the sincerity of those who oppose antimissile defense deployment as a logical consequence of a conviction that defense funds should be transferred to the solution of domestic problems is not questioned, the arguments discussed here are those which deal directly with strategic considerations.

is the conviction that a potential adversary will respond to any antimissile defense deployment by quantitatively or qualitatively improving his offensive forces or both.

The combination of tactical and technological uncertainties concerning the employment and performance of both offensive and defensive weapons in a nuclear exchange causes opponents of antimissile defense to doubt its relative effectiveness.²⁹ They argue that short of an actual nuclear exchange, the system is untestable and therefore unreliable. The Partial Test Ban Treaty further complicates this problem since key nuclear effects are held to be unverifiable. Although the same argument has been made against offensive systems, the range of uncertainties is not as great and the technological sophistication is not as advanced.

Finally, it is asserted that domestic political pressure and bureaucratic inertia will cause any antimissile defense system to become more extensive and thus more provocative to potential adversaries, thereby promoting arms race pressures. A spectrum of opinion on the content of such an arms race, from defensive systems to counter defensive systems to offensive systems to overwhelm defensive systems, has come forth in support of this assertion.

29. A. R. Hibbs, "ABM and the Algebra of Uncertainty," Bulletin of the Atomic Scientists, March 1968, pp. 31-33. Dr. Hibbs examines how uncertainties about strategic weapons can alter the results of cost-exchange ratio calculations and posits that assumptions chosen concerning the uncertainties regarding antimissile defense can result in a range of outcomes between 1/3:1 and 3:1.

Despite the questionable prospects for creation of effective defense against ballistic missiles, both the United States and the Soviet Union conduct expensive and ambitious research and development programs in this area. The underlying basis for these vast expenditures is the profound understanding that despite past frustrations and the gloomy prospects for complete success, they cannot entrust their national security to the chance that such a defense is impossible. History is littered with now obsolete "ultimate weapons." Research and development programs which have been carried out by the United States have included several boost phase interceptors employing sea, air, and space surveillance and interceptor launch. The degradation of the antimissile defense environment by nuclear detonations has resulted in careful study of kill mechanisms which do not employ nuclear weapons. In addition to conventional explosives, high velocity steel pellets to destroy warhead coatings³⁰ and asphalt cloud techniques to coat warheads and cause them to burn up on reentry have been studied.³¹

30. William Schneider, Jr., "Missile Defense Systems: Past, Present, and Future," in Johan J. Holst and William Schneider, Jr., eds., Why ABM?, (New York: Pergamon Press, 1969), p. 13.

31. Aviation Week and Space Technology, 8 June 1970, p. 19.

Chapter 2

The United States-Soviet Dialogue, 1960-66

Although the problems involved in antimissile defense were discussed in the Soviet press during the latter half of the 1950's,¹ this survey of the United States-Soviet dialogue on antimissile defenses takes Nikita Khrushchev's defense policy speech to the Supreme Soviet on 15 January 1960 as its point of departure. In this authoritative discussion, Premier Khrushchev asserted that Soviet military planners should act on the assumption that any future general war would involve the mass use of nuclear weapons. He postulated that approximately 100 nuclear weapons would be sufficient to obliterate the main centers of an industrialized nation the size of Great Britain or France. In a radical departure from previous Soviet pronouncements, he stressed the point that a nation's defense capacity should be measured in terms of its firepower rather than its number of men under arms. To support this contention, he stated that although Soviet armed manpower had declined since 1955, further reductions over the year 1960 would reduce the Soviet Armed Forces to a total manpower figure of 2,500,000, a cut of 1,200,000 men. This cut could be made without sacrificing overall Soviet defense posture since the Soviet Union already had a "sufficient supply

1. For example, its theoretical potential had been discussed by Major F. Kriksanov in his article "The Problem of the Interception of Intercontinental Ballistic Missiles," Voyennye Znaniya (Military Knowledge), July 1957, pp. 15-6.

of nuclear weapons to deal with any eventuality."²

During the latter years of the Eisenhower Administration, United States strategic policy was still essentially based on John Foster Dulles' concept of "Massive Retaliation," although general criticism of its implications had grown in the years after 1957. In early 1960, Major General John B. Medaris, U.S. Army (Retired), formerly the director of the Army's Jupiter intermediate range ballistic missile program, criticized procurement policies as having produced "overkill." He urged the Administration to deploy the Nike-Zeus antimissile defense system, terming it the "only conceivable and positive defense" against attack that would be available in the decade of the 1960's.³ While this advice was not implemented as policy, "realistic feasibility tests" for the Nike-Zeus system were announced in late June.⁴ No date was given for these tests, which were to be conducted against Atlas reentry vehicles, but it was anticipated that the Nike-Zeus might not be ready for such tests until early 1961. Given the then-existing technology, the detection, tracking, and destruction of an incoming warhead was viewed as a great technological challenge. Defense against a cluster of warheads was seen as an unsolvable problem without a major technological breakthrough. The 1958-61 moratorium on nuclear testing

2. Pravda, 15 January 1960, p. 1.

3. The New York Times, 21 April 1960, p. 7.

4. The New York Times, 30 June 1960, p. 9.

further complicated the problem by denying critical nuclear effects data.

In an important article which appeared in October 1960, Major General Nikolai Talensky, a military theoretician on the Soviet General Staff, seconded Khrushchev's earlier assertions:

War as an instrument of policy is becoming outdated. The process of development of technique in the destruction of people makes it impossible now to use weapons for the solution of political tasks, as has been the case in the course of thousands of years.⁵

In the same article, he scoffed at the notion that anti-missile defenses could prevent the loss of half the population of the world in the event of nuclear war: "So far, there is no practical way of repulsing a nuclear rocket attack."⁶ In view of subsequent Soviet testing of antimissile weapons one year later, it seems reasonable to assume that General Talensky's pessimism was at least partially intended to lull the United States regarding Soviet progress in this area.

This view was quickly disputed both in the United States and the Soviet Union. On 15 October, "Pentagon sources" stated that the Soviets were working on an antimissile missile.⁷ Previously, these sources had considered such a

5. Mezhdunarodnaia Zhizn' (International Affairs), October 1960, p. 33.

6. Ibid., p. 36.

7. The New York Times, 15 October 1960, p. 3.

development as a possibility rather than a fact. This contention was obliquely supported when, a month later, Marshal of Artillery Vasily L. Kasakov announced that Soviet forces had rockets which could destroy "offensive pilotless devices at great altitudes."⁸ Although it is possible that he was referring to jet-powered, air-breathing cruise missiles then being carried by Strategic Air Command bombers,⁹ he may have been ambiguously implying an antimissile defense capability.

United States reaction throughout late 1960 and the first half of 1961 ranged from statements of the technological difficulties involved in antimissile defense to crediting the Soviets with having made a major breakthrough. Brigadier General Paul Betts, outgoing Director of the Defense Department's Advanced Research Projects Agency (ARPA), stated that "a reasonably effective terminal defense system can be built."¹⁰ This statement provided a basis for increased Army pressure for antimissile defense during the Fiscal Year 1962 Congressional appropriations hearings. Dr. Jack P. Ruina, the new Director of ARPA, led off this campaign in February

8. Izvestia, 18 November 1960, p. 3.

9. Cruise missiles are essentially pilotless aircraft which follow flight profiles within the earth's atmosphere. Although they are smaller than manned aircraft, they share the same general operating characteristics. In the strategic role, cruise missiles are normally launched from bomber aircraft at a distance from the target, thus providing some degree of protection to the launch aircraft. The missile delivers the weapon over varied atmospheric flight paths.

10. The New York Times, 6 December 1960, p. 11.

1961 when he stated that over one-half of ARPA's \$170 million research and development budget was devoted to antimissile defense research. He predicted that Nike-Zeus might be developed into a defense for selected areas. Richard Morse, Army Research and Development Director, raised the specter of Soviet supremacy: "It is my opinion, based on my information, that the Russians have a large, a very large antimissile effort, and have had for some time."¹¹ The Army advocated gradual production and deployment of Nike-Zeus, admitting that it could be defeated by large-scale saturation attacks, but doubting that the Soviet Union had enough missiles for such an attack. This optimism seemed borne out by the successful tracking of an Atlas reentry vehicle by a Zeus radar on Ascension Island in the South Atlantic on 27 May 1961.

The "Missile Gap" which had figured importantly in the 1960 United States Presidential Election gradually collapsed during the latter half of 1961 coincident with the conduct of an unanticipated Soviet series of atmospheric tests of nuclear weapons. Although Kennedy Administration leaders were probably aware of the growing discrepancies between force level projections based on Soviet production capabilities and actual deployments at an earlier date, the timing of the release of such information to the public indicated that it was primarily intended to quiet domestic concern over the test series. A secondary motivation for this extended silence may

11. The Washington Post, 12 February 1961, p. A4.

have been to avoid compromising the sources of United States strategic intelligence during that period which predated present reconnaissance satellites. Accordingly, previous United States projections of 200 Soviet intercontinental ballistic missiles were reduced to "less than 50."¹²

The motivation behind the Soviet test series probably lay in a desire to proof test newly developed technology, including that related to antimissile defenses and to stage demonstration tests of extremely high yield (in excess of 50 megatons) devices to sustain the impression created by Sputnik and the "Missile Gap" that the Soviet Union led the United States in advanced weapons technology. The latter factor is supported by the timing of the test resumption to coincide with the Conference of Non-Aligned Nations in Belgrade. Both Premier Khrushchev and Defense Minister Rodion Ya. Malinovsky made subsequent statements which asserted that the large yield devices tested provided the Soviet Union with important operational capabilities which should alter any relative force calculations made by Western analysts. Khrushchev saw these weapons as "a sword of Damocles" which would "hang over the heads of the imperialists when they decide the question whether or not they should unleash war."¹³ Marshal Malinovsky's statement emphasized that these weapons were capable of

12. The Washington Post, news article by Joseph Alsop, 25 September 1961, p. A20.

13. Pravda, 9 December 1961.

being delivered by missile:

...we have nuclear charges equivalent to several tens of thousands up to 100 million tons of TNT, and our ballistic rockets have proved to be so splendid that no one can doubt their ability to lift and deliver such charges to any point on earth.¹⁴

The unanticipated resumption of atmospheric nuclear testing by the Soviet Union on 29 August 1961 resulted in widespread alarm in the United States. Much of it centered on the possibility of a breakthrough in antimissile defense technology. Some officials saw testing of an antimissile system as the primary reason for the atmospheric testing. They assumed that the Soviet Union had engaged in a crash antimissile defense program and was probably ahead of the United States in this field: "For the Soviets to have reached the technological point where such tests are possible, it was said, would indicate vast progress in antimissile research and development."¹⁵ General Medaris warned that the United States must not allow the Soviets to be first to develop an antimissile defense, since possession of such weapons in advance of the United States could induce the Soviets to preemptively attack before antimissile parity could be reached.

14. Pravda, 24 October 1961.

15. The New York Times, 6 September 1961, p. 3. Subsequent information concerning these tests revealed that they included several tests of antimissile defense kill mechanisms, including an actual destruction of two incoming reentry vehicles by a nuclear detonation above the earth's atmosphere.

He repeated his advocacy of immediate deployment of Nike-Zeus, stating that it could destroy 80 per cent of incoming warheads as long as their number did not exceed the number of interceptor missiles.¹⁶ In a reversal of his earlier position that antimissile defense was impossible, Dr. Edward Teller added that the Soviet testing program may have led to "real progress in developing an antimissile missile."¹⁷

In what now appears to have been a clever campaign of deliberately ambiguous statements, each somewhat more direct than the previous one allowing for the examination of United States reaction, the Soviets exploited these fears. Appropriately, this campaign was initiated by Khrushchev himself in an interview with C.L. Sulzberger on 8 September. After prefacing his remarks with a discussion of the requirements of military secrecy, he lauded Soviet scientists: "We remain very satisfied with the work of those who produced the means of combatting rockets."¹⁸ This was the first public statement by Khrushchev on antimissile defense. The interview was followed by an article by Marshal Kiril S. Moskalenko, Commander of the Strategic Rocket Forces, crediting Soviet ICBMs as being "invulnerable to modern means of counteraction."¹⁹ It was uncertain whether he referred to hardened launch sites

16. The New York Times, 21 September 1961, p. 15.

17. The Washington Post, 31 October 1961, p. A14.

18. The New York Times, 8 September 1961, p. 1.

19. Krasnaya Zvezda (Red Star), 13 September 1961.

or the ability of these missiles to penetrate any known anti-missile defense. The campaign was capped by Defense Minister Marshal Rodion Ya. Malinovsky's review of the state of Soviet Armed Forces before the 22nd Party Congress on 24 October which included the following statement: "I must report to you especially that the problem of destroying missiles in flight has been successfully solved."²⁰ Marshal Malinovsky did not say whether such a weapon had been developed and deployed. Further such statements followed in early 1962. On the 44th Anniversary of the Soviet Armed Forces, Marshal Malinovsky asserted that Soviet forces "can destroy the enemy's air and space means of attack at enormous distances and altitudes."²¹ In a May article, Colonel I. Sidenikov repeated Khrushchev's 1960 contention that a United States-Soviet war would be a missile war. He also echoed Marshal Malinovsky's October statement that "We have successfully solved the problem of destroying enemy missiles in flight."²²

Official United States reaction to these claims was highlighted by President Kennedy's speech announcing the resumption of nuclear testing in the atmosphere. He stated that despite statements by non-government analysts such as Dr. Teller to the contrary, the recent Soviet test series "did not,

20. Pravda, 25 October 1961, p. 1.

21. Pravda, 23 February 1962, p. 4.

22. Colonel I. Sidelnikov, "Concerning Military Doctrine," Krasnaya Zvezda (Red Star), 11 May 1962, p. 2.

in our judgment, reflect a developed antimissile system,"²³ President Kennedy added that the forthcoming United States tests would include high altitude detonations and other tests in areas related to antimissile defense. The stated goal was better nuclear effects data relevant to defensive systems. These declarations were supported at President Kennedy's 14 March press conference where he stated that there was no sign that the Soviets "have sufficient data to develop an antimissile weapon based on their recent tests."²⁴ He added that the United States was continuing development of the Nike-Zeus. This system successfully intercepted a Nike-Hercules missile at White Sands Proving Ground on 22 December 1961. On 26 January 1962, the Nike-Zeus intercepted an electronically-simulated reentry vehicle. The Kennedy assertion of continued Nike-Zeus development was supported by developments in the summer of 1962. The Army purchased 18 Atlas ICBMs for future intercept tests at Kwajalein Atoll in the Central Pacific. The first such test was successfully conducted on 19 July when a Nike-Zeus intercepted an incoming Atlas reentry vehicle at an altitude between 100,000 and 200,000 feet. Despite this achievement, Administration officials remained guarded over the system's effectiveness, citing the controlled conditions of the test. A second successful test was conducted on 13 December. Again, development was stressed in official press releases. Throughout this period, the United

23. The Washington Post, 3 March 1962, p. A2.

24. The New York Times, 15 March 1962, p. 18.

States attempted to deliberately avoid giving any ambiguous signals regarding deployment of an antimissile system.

Soviet antimissile defense claims in 1962 bracketed the Cuban missile adventure of September and October. Khrushchev himself carried out the pre-Cuba assertions. In a 16 March speech in Moscow, he announced that the Soviet Union had developed a "global" rocket invulnerable to antimissile weapons. This statement was repeated before the World Congress on General Disarmament in Moscow on 10 July: "In order to insure its security, the Soviet Union was forced to develop ...the global rocket which is practically impervious to defense, and antimissile rockets."²⁵ This statement slightly weakens the March stand on vulnerability of the global rocket by substituting "practically impervious" for "invulnerable." Later in this conference, Khrushchev cancelled the planned showing of a film demonstrating the Soviet antimissile missile in operation, citing concern that its message might be "misunderstood."²⁶ His July boastings were capped by Khrushchev's 17 July interview with United States newspaper editors. In this interview, he repeated his 13 July statement concerning the film of Soviet antimissile missiles in action. He had decided against showing it, fearing "it might be misunderstood"

25. Pravda, 11 July 1962, p. 3. These "global rockets" are not to be confused with the Fractional Orbital Bombardment System (FOBS) which was a later development. Subsequent evidence seems to indicate that Khrushchev was referring to the ICBM at this time.

26. Pravda, 13 July 1962, p. 1.

as a warlike gesture:

Had people been shown this film they would have seen what kind of a machine it is. You can say our rocket hits a fly in outer space I am not boasting, but we actually have a global rocket that cannot be destroyed by any antirocket means and I know, if anybody knows, what antirocket means are because we do have them.²⁷

United States reaction to this statement tended to minimize its credibility and interpreted it as an attempt to play on world opinion and possibly still Soviet critics of Khrushchev's defense policies.

From July until the outset of the Cuban Missile Crisis in the latter half of October, Soviet statements on antimissile defense were absent. The dialogue was resumed by Marshal Malinovsky at the height of the crisis. Speaking before the All-Army Conference on Ideological Questions on 25 October, he repeated his year-old formulation that "we have successfully solved the problem of destroying enemy missiles in flight." However, for the first time, he appeared to attempt to establish antimissile defenses as an actual operational capability: "Our scientists have developed and our engineers, technicians and workers have built and prepared complexes of numerous means for the defense of our country against enemy missile attacks."²⁸

Following Marshal Malinovsky's speech, the overt Soviet

27. The New York Times, 17 July 1962, p. 1.

28. Krasnaya Zvezda (Red Star), 25 October 1962.

strategic discussions subsided in the wake of the October missile crisis. In early December, Soviet claims of superiority were again advanced. Marshal Sergei S. Biryuzov, who had succeeded Marshal Moskalenko as Commander of the Strategic Rocket Forces in November, asserted that the Soviet Union led the United States in the development of "powerful rockets" and antimissile defenses. He stated that "the Soviet Union has proved her superiority over the United States in the field of antimissile defenses."²⁹ On 10 December, Chief Artillery Marshal Sergei S. Varentsov, Commander of Tactical Rockets and Artillery, asserted that the Red Army was more combat ready than its United States counterpart. To support this contention, he cited a failure-free launch record for his force's missile exercises.³⁰ It is significant to note that these statements did not repeat the pre-Cuba claim that the Soviet Union had the advantage in overall nuclear striking power. Stress was shifted to assertions of Soviet superiority in design and development of large rockets and warhead yield. To cap this period, Khrushchev addressed the Supreme Soviet on 12 December. He stated that the past seven months had proved the validity of the doctrine of peaceful coexistence. With respect to Cuba, he praised both sides for their "sober approach" and outlined concessions made by both the Soviet Union and the United States. "This is exactly the policy of peaceful

29. Krasnaya Zvezda (Red Star), 4 December 1962.

30. Izvestia, 10 December 1962.

coexistence in action," he concluded.³¹

On 16 December, President Kennedy responded to Soviet antimissile claims, particularly Khrushchev's "fly in the sky" statement, at a press conference:

He might hit a fly but whether he could hit a thousand flies with decoys - you see, every missile that comes might have four or five warheads in it - that is a terribly difficult task which we have not mastered yet, and I don't think he has. The offense has the advantage.³²

In response to a question of whether the Soviets had solved the problem of hitting a missile in flight he answered, "Yes, and so have we."³³

Soviet antimissile defense claims for 1963 were notable for their low key approach, particularly during the first ten months. The only specific claims made during this period were Strategic Rocket Force Commander Marshal Sergei S. Biryuzov's 22 February repetition of Marshal Malinovsky's previous statement that "the problem of destroying enemy rockets in flight has been successfully solved."³⁴ However, the publication of Marshal Vasily D. Sokolovsky's book, Soviet Military Strategy, provided a somewhat deeper insight into Soviet

31. Izvestia, 12 December 1962.

32. The New York Times, 17 December 1962.

33. Ibid.

34. Krasnaya Zvezda (Red Star), 22 February 1963.

military doctrine and strategic analysis. Its Western introduction described this work as the first comprehensive book on strategy published in the Soviet Union since 1926. It is noteworthy that the author had served as Chief of the Soviet General Staff from 1953 to 1960. In its discussion of anti-missile defense, the Sokolovsky work was notable for its restraint, stating that "in principle, a technical solution to this problem has now been found."³⁵ Nevertheless, the author made no attempt to assert that the Soviet Union possessed such a defense system, but predicted its future possibilities more specifically while cautioning that for the present the offensive forces still maintained the advantage:

Ballistic missiles, employed en masse, are still practically invulnerable to existing means of air defense, and their employment is almost independent of weather conditions. Only as special instruments of antimissile defense are developed will it be possible to combat the massive use of missiles in the air.³⁶

In the United States, Congressional hearings on the Fiscal Year 1964 Defense Budget created an active debate on anti-missile defenses. The debate was opened by Senator Strom Thurmond in a 25 March letter to his constituents which stated that the Soviet Union had "a lead of at least several years in

35. Marshal V. D. Sokolovsky, Soviet Military Strategy, revised edition, (Englewood Cliffs, New Jersey: Prentice-Hall, 1963), p. 307.

36. Ibid., p. 298.

development of an active defense against ballistic missiles." He added that "a very real and dangerous gap exists."³⁷ The well-informed military analyst, Hanson Baldwin, pointed out that the 1961-2 Soviet nuclear test series had included a high yield blast above the atmosphere which had destroyed two ballistic missiles. He added:

Some experts believe the Soviets are about to deploy some kind of antiballistic missile system, however others believe that the United States is ahead of Russia technically and that both powers are very far from producing a system capable of dealing with decoys and saturation attacks.³⁸

On 10 April, acting against Department of Defense advice, the Senate Armed Services Committee appropriated \$196 million to begin procurement of long leadtime items for Nike-Zeus. The Kennedy Administration quickly responded that the funds would not be spent. Two days later, Senator Thurmond called the Senate into closed session for the first time since World War II. In this session he outlined the discovery of a suspected antimissile complex near Leningrad. Pentagon sources evaluated the site as a development installation like that on Kwajalein. The Senate voted against recommending the deployment of Nike-Zeus, 58-16.³⁹ In subsequent hearings before the Senate Appropriations Subcommittee, Secretary McNamara outlined

37. The New York Times, 25 March 1963, p. 8.

38. The New York Times, 5 April 1963, p. 7.

39. The Washington Post, 12 April 1963, p. A1.

the Administration's rationale for postponing antimissile defense deployment:

Although we are investing large sums on research and development in ABM systems, we do not have any significant capability to intercept those missiles once they have been launched, and, contrary to newspaper reports, and I want to emphasize this point, neither does the Soviet Union. There are technical reasons why we should not proceed with actual deployment: (a) we cannot discriminate between real and decoy warheads, and (b) we need to know more about the effects of a nuclear detonation on elements of the defensive system.⁴⁰

This debate then subsided until it was essentially repeated during Senate hearings prior to ratification of the Partial Test Ban Treaty in August 1963. Both the critics and supporters of the Treaty treated ballistic missile defense as the most significant weapons development which would be inhibited by the absence of knowledge further atmospheric nuclear testing would provide. The Administration argued that nuclear testing did not seem to be decisive either to the evaluation or development of antimissile systems. Secretary McNamara stated that: "In designing an ABM system, the major factors are reaction speed, missile performance, traffic-handling capacity, decoy discrimination, resistance to blackout effects, and warhead technology."⁴¹ Only the last two factors depended

40. Hearings before the 85th Congress, Senate Appropriations Subcommittee, (Washington: U.S. Government Printing Office, 1963), p. 6.

41. Time, 23 August 1963, p. 14.

on atmospheric testing. The implication was that the test ban was not an indirect ban on ballistic missile defenses. In a press conference on 2 August, President Kennedy summed up the then-existing uncertainties:

The problem of development of a defense against a missile is beyond us and beyond the Soviets technically, and I think many who work on it feel that perhaps it never can be successfully accomplished.... If there is an advantage, it seems to me, to be with the offense.⁴²

This faith in offensive superiority has been a persistent theme in United States antimissile defense discussions which have stressed saturation attacks to overwhelm a defense and the use of penetration aids to confuse it.

The Soviet low key approach of early and mid-1963 was abruptly terminated when an antimissile rocket was displayed in the 8 November military parade commemorating the 46th Anniversary of the Bolshevik Revolution. This display was accompanied by wide coverage in the news media. In a radio broadcast, Marshal Biryuzov cited this rocket as being capable of destroying "the enemy's rockets in the air."⁴³ Other radio commentators described the weapon as the one Khrushchev referred to in his "fly in the sky" statement. The news agency Tass added that the rocket had performed brilliantly in recent maneuvers. However, Western military attaches on the scene

42. The New York Times, 2 August 1963, p. 10.

43. The Washington Post, 8 November 1963, p. A1.

were somewhat skeptical of its real performance and noted that neither Tass nor Izvestia had used the term "antimissile missile" to describe the weapon. The maneuvers mentioned by Tass were given more detailed descriptions in later articles by Soviet military leaders. On 16 November, Major General P. Radchenko, an Air Defense Forces spokesman, described the maneuvers as a "complex aerial situation."⁴⁴ The following day, Marshal N. I. Krylov, the recently appointed Commander of the Strategic Rocket Forces, moved to counter any speculation that Soviet strategic rockets were vulnerable: "The existing systems of antiaircraft and antimissile defense cannot withstand nuclear rocket strikes. And no matter strong this defense may be, our strategic rockets will inevitably reach their selected targets."⁴⁵ It is perhaps significant that neither article discussed penetration aids as being a part of the "complex aerial situation" of these maneuvers. The temptation to do so must have been great since most United States responses to the antimissile display stressed saturation tactics and penetration aids. Perhaps "complex aerial situation" was thought to be sufficiently ambiguous to play on Western uncertainties.

Two early 1964 articles by Marshal V. Sudets, Commander of the Air Defense Forces (PVO), followed up the November 1963

44. Krasnaya Zvezda (Red Star), 16 November 1963, p. 4.

45. Izvestia, 17 November 1963, p. 4.

campaign. On 5 January, he stated that "the combat capabilities of these [PVO] forces permit the destruction of practically all modern means of air-space attack."⁴⁶ This was followed by an article generally more militant in tone but which returned to Marshal Malinovsky's earlier formulation in describing defensive capabilities: "We have successfully solved the problem of creating a reliable defense, not only against aircraft, but also against missiles."⁴⁷ However, although the form of this statement seems much like those of Marshal Malinovsky, there seem to be important differences. The problem Marshal Malinovsky discussed was that of "destroying enemy missiles in flight," while Marshal Sudets' problem involved "creating a reliable defense." It now seems likely that Marshal Sudets was lobbying for deployment of such a system rather than the possession of a mere military capability.

For the first half of 1964, United States statements on antimissile defense were particularly subdued. It was not an issue in the Johnson-Goldwater election campaign. Four successful Nike-Zeus intercepts of Atlas reentry vehicles over Kwajalein were tersely announced and the Fiscal Year 1965 Budget Hearings were generally free from real debate on the deployment issue. In a commencement address at the Coast

46. Marshal V. Sudets, "A Reliable Shield," Izvestia, 7 January 1964, p. 5.

47. Marshal V. Sudets, "The National PVO at the Present Stage." Krasnaya Zvezda (Red Star), 28 March 1964.

Guard Academy in New London on 4 June, President Johnson underscored the United States program of steady development progress while postponing the deployment decision: "Nike-X, when developed, will give this nation the option to deploy, if national security requires it, the best antimissile missile available to any nation."⁴⁸ This decision to postpone deployment was based on real doubt whether the cost of the Nike-X system was worth the protection it might provide. The cost consideration was primary. The Johnson Administration seemed initially determined to minimize military spending. A second consideration was a desire to conduct further research to assure that system components would operate as designed. Third was a desire to avoid any destabilizing activity that could prompt an accelerated arms race with the Soviet Union.

In an article which appeared on 24 July, Hanson Baldwin discussed the identification of a possible second Soviet anti-missile defense site near Moscow. He concluded the article by outlining recent United States defensive progress, stating that the improved Nike-X radar could be hardened and that it had proven capable of discriminating between real and decoy warheads above the atmosphere where they could be destroyed by the newly-designed Spartan missile. The initial cost of

48. The New York Times, 4 June 1964, p. 1. The Nike-X system succeeded the Nike-Zeus system in early 1965. Among its advances were a larger, longer range exoatmospheric interceptor, the Spartan; a second high-acceleration point defense missile named Sprint; and phased array radars to replace the mechanically-slewed models associated with Nike-Zeus.

such a system around twenty cities was placed at \$15-17 billion, with annual operating costs estimated at \$2.0 billion.⁴⁹

Two particularly important articles appeared in October 1964, just prior to Khrushchev's ouster. On the Soviet side, Major General Nikolai Talensky authored "Anti-Missile Systems and Disarmament," which appeared in Mezhdunarodnaia Zhizn' (International Affairs). To date, General Talensky is unique in that he is the only Soviet military theoretician who has identified himself with arms control and disarmament issues in a positive manner. This article was preceded in August by a statement from Marshal Sokolovsky which intimated that anti-missile defenses were a future capability and that the United States was not the only nation which could base its strategy on saturating the defenses of an opponent:

The constantly growing possibilities of anti-missile defense must be taken into account. McNamara...declared that the United States intercontinental ballistic missiles should be launched in a salvo to overcome the enemy's antimissile defense, that the launching of a large number of missiles should be carried out simultaneously. The Soviet Union is capable of launching no less mighty a salvo of its own strategic missiles...and, moreover, more than one such salvo.⁵⁰ [*Italics mine*]

This article made no mention of Soviet antimissile capabilities, but stressed antiaircraft forces and defense against

49. The New York Times, news article by Hanson Baldwin, 24 July 1964, p. 7.

50. Krasnaya Zvezda (Red Star), 25 August 1964, p. 2.

bomber-launched air-breathing cruise missiles.

General Talensky began his article with a general discussion of the historical interplay between offensive and defensive weapons. Reaching the present period, he described war as a disaster for all mankind with the obvious corollary being to abolish war. He realistically saw this as improbable, if not impossible, given the present international situation. He then outlined a case for the deployment of anti-missile defenses:

It is theoretically and technically quite possible to counterbalance the absolute weapons of attack with equally absolute weapons of defense, thereby eliminating war regardless of the desires of resisting governments.... What is important is that antimissile rockets are designed exclusively for the destruction of enemy rockets and not for hitting any other objectives on the enemy's territory.... Thus, anti-missile systems are defensive weapons in the full sense of the word: by their technical nature they go into action only when the rockets of the attacking side take to their flight paths, that is when the act of aggression has been started. The advantage of antimissile systems is that their use is caused by an act of aggression, and they will simply not work unless an aggressor's rocket makes its appearance in flight over a given area.... While nuclear rockets offer only one solution to the problem of attack and defense, namely a nuclear strike, antimissile systems are a new form of nuclear rockets, namely their specifically defensive form.⁵¹

51. Major General Nikolai Talensky, "Anti-Missile Systems and Disarmament," Mezhdunarodnaia Zhizn' (International Affairs), October 1964, p. 16.

Having established this rationale for the development of anti-missile defenses, General Talensky moved to criticize Western contentions that such deployments would upset the nuclear balance, which he referred to as the system of "deterrence through fear:"

It is said that the international strategic situation cannot be stable when both sides simultaneously strive towards deterrence through nuclear rocket power and the creation of defensive anti-missile systems.

I cannot agree with this view either. From the standpoint of strategy, powerful deterrent forces and an effective anti-missile defense when taken together, substantially increase the stability of mutual deterrence, for any partial shifts in the qualitative and quantitative balance of these two component elements of mutual deterrence tend to be correspondingly compensated and equalized.

In that case, the danger lurks in politics. An aggressive policy and a course set for nuclear attack with 'acceptable' losses for oneself as a result of a counterstrike create the danger of an outbreak of thermonuclear war, whether or not anti-missile systems are at hand. But these systems considerably enhance the security of peace-loving states. The creation of an effective anti-missile system enables the state to make its defense dependent chiefly on its own possibilities, and not only on mutual deterrence, that is, on the goodwill of the other side.⁵²

Although General Talensky failed to carry this argument for heavy antimissile defenses any farther, its logical outcome

52. Talensky, "Anti-Missile Systems," Mezhdunarodnaia Zhizn' (International Affairs), October 1964, pp. 17-18.

would have resulted in the neutralization of the political utility of strategic forces short of deterring the Soviet Union and the United States from resorting to nuclear warfare against each other. With the perceived threshold of resorting to nuclear war thus elevated, Soviet advantages in General Purpose or Theater Forces and geographical proximity to areas of potential conflict could have been expected to offer increased opportunities for extracting concessions through classical modes of power politics in those areas without the Soviet Union having to deal with the fear of a nuclear response from the United States.⁵³

To press home his point that deployment of antimissile defenses was a rational response to the existing international situation for the Soviet Union, General Talensky concluded that: "There is only one reasonable alternative to a race in antimissile systems, and it is the early implementation of general and complete disarmament."⁵⁴ Without such an agreement, he argued that the Soviet Union would have no recourse but to deploy antimissile defense systems, despite their high costs.

53. Uri Ra'anani, "Soviet Global Politics and the Middle East," Naval War College Review, September 1971, p. 21. See also the forthcoming pamphlet The Deterioration of the U.S.-Soviet Strategic Balance: Some Political Implications, by the same author to be presented to the Senate Committee on Governmental Operations, Subcommittee on National Security, in February 1972.

54. Talensky, "Anti-Missile Systems," Mezhdunarodnaia Zhizn' (International Affairs), October 1964, p. 19.

The appearance of General Talensky's article was paralleled by the publication of an influential article by United States scientists Jerome Wiesner and Herbert York. Both men had served in high level scientific advisory positions shortly before writing this article; Dr. Wiesner as Special Assistant for Science and Technology to Presidents Kennedy and Johnson from 1961 to 1964 and Dr. York as Director of Defense Research and Engineering from 1953 to 1961. Although specifically intended to quiet domestic concern over the implications of the Partial Test Ban Treaty, it also addressed itself to antimissile defenses. Deployment of such systems was seen to be highly destabilizing, leading to a resumption of the arms race which the authors saw as slowed by the Treaty. Prospects for the military success of antimissile defense systems were minimized. Offensive systems were seen to be clearly superior, having the advantages of surprise, lower absolute and unit costs, saturation, multiple warheads from a single missile, penetration aids, and targeting flexibility. The situation was regarded as being permanent:

The hopelessness of the task of defense is apparent even now in the stalemate of the arms race. A considerable inertia drags against the movement of modern, large-scale, unitary weapons systems from the stage of research and development to operational deployment. The duration and magnitude of these enterprises, whether defensive or offensive, practically assure that no system can reach full deployment under the mantle of secrecy. The designer of the defensive system, however, cannot begin until he has learned something about the properties and

capabilities of the offensive system. Inevitably the defense must start the race a lap behind. In recent years, it seems, the offense has even gained somewhat in the speed with which it can put into operation stratagems and devices which nullify the most extraordinary achievements in the technology of defense.⁵⁵

In the period immediately following Khrushchev's ouster, spokesmen from the Soviet military attempted to discredit United States efforts in antimissile defense and strategic offensive missile systems. This campaign was initiated by Marshal Krylov, Commander of the Strategic Rocket Forces, on 19 November:

It should be added that in our country the problem of combatting enemy rockets in flight has been successfully solved, and effective methods have been found for destroying any weapons of air and space attack by an aggressor. It is no accident that a certain American Senator was compelled to admit that 'Russia's defense systems have attained a level of where the Russians can destroy our Polaris missiles, and possibly even our Minuteman missiles in the air. And, after all, these are the weapons we consider the least vulnerable.'⁵⁶

In early February, three Soviet articles appeared concerning United States antimissile defense progress. This period from November 1964 to February 1965 is unique in that it encompassed the first real discussion of United States efforts

55. Jerome B. Wiesner and Herbert F. York, "National Security and the Nuclear Test Ban," Scientific American, October 1964, p. 33.

56. Pravda, 19 November 1964, p. 2.

to appear in the Soviet press. Therefore, it seems appropriate to quote liberally from these articles. Colonel P. F. Plyachenko cited scientific pessimism in the United States:

U. S. scientists and planners believe that it is impossible to set up an anti-missile system which would be capable of destroying any incoming missile force. Instead it is hoped that such a system would be effective enough to discourage the enemy. The progress made in the U. S. ABM program is discussed in those terms.⁵⁷

Another article by Colonel-Engineer V. Romanov described the extensive efforts of the United States in antimissile defense research. He degraded the Ballistic Missile Early Warning System, a network of large radars facing over the North Pole, as being vulnerable to Soviet "global rockets" which could be fired against American targets from the opposite direction.⁵⁸ He evaluated United States defensive efforts as follows: "Despite all efforts of Americans, up to now they have not succeeded in creating a reliable system of anti-rocket defense and still need a lot of time to solve this problem."⁵⁹ He concluded with a statement that Soviet rockets would reach

57. Colonel P. F. Plyachenko, "Development of an Anti-Missile System in the United States," Vestnik Protivovozdushnoy Oborony (Air Defense Journal), February 1965, p. 18.

58. Subsequent evidence suggested that this "global rocket," referred to in the West as the Fractional Orbital Bombardment System (FOBS), was in pre-flight testing at this time. Engineer-Colonel Romanov was inferring a false operational capability.

59. Engineer-Colonel V. Romanov, news article in Sovetskiy Patriot (Soviet Patriot), 7 February 1965.

their American targets, which for the first time were vulnerable despite their geographical isolation should the United States start a general war. No mention was made of Soviet antimissile defense capabilities in this article or another authored by Major General V. Zemskov which followed it. General Zemskov's article presented a knowledgeable analysis of United States force levels and defense trends.⁶⁰

Other Soviet articles during this period repeated previous claims of Soviet antimissile defense capabilities. Marshal Malinovsky's message on the 48th Anniversary of the Soviet Armed Forces was typical:

The air defense forces have mastered the new methods of destroying flying targets while they are still far short of objectives being defended. The Soviet Union has solved the complex and extremely important problem of destroying any enemy rocket in flight.⁶¹

On 30 March 1965, the United States announced the first successful test of the Sprint missile, the point defense interceptor for the Nike-X system. In previous years, such announcements had served to ignite public debate on antimissile defense deployment. In 1965, such a debate did not take place. The only overt statement by the Johnson Administration was the

60. Major General V. Zemskov, "Policy Is Still an Arms Race," Krasnaya Zvezda (Red Star), 17 February 1965.

61. Pravda, 23 February 1965, p. 2. See also Engineer-Lieutenant Colonel V. Kosyrev, "Weapons of Great Destructive Power," Voennoye Znaniya (Military Knowledge), November 1964, pp. 34-35 and Marshal V.D. Sokolovsky, The New York Times, 18 February 1965, p. 6.

14 May release of previously classified testimony given by Secretary McNamara to the House Appropriations Committee on 5 March. There seems little doubt that the release of this testimony, which coincided with China's second nuclear test, was intended as a warning to the Chinese. Specific care was taken to avoid ambiguity with regard to the Soviets. Secretary McNamara's statement cited development of an antimissile defense system which would protect the United States from attack by other than great powers for a "decade or two" as "well worth considering." He estimated the cost of such a system at eight to ten billion dollars, about half what he estimated to be the minimum cost for a system to afford "some measure of protection" against a massive Soviet attack.⁶² In this and other related public statements, Secretary McNamara was careful to avoid picturing an "anti-China ABM" as being a threat to the United States-Soviet nuclear balance.

Overt Soviet "antimissile rattling" during their May Day Parade may also have influenced the McNamara release. While the weapons paraded in Red Square included the same antimissile missile previously displayed, Tass described it as an "antimissile rocket"⁶³ specifically for the first time and repeated the contention that Soviet rockets were "practically

62. The New York Times, 15 May 1965, p. 3. For the complete text, see U.S., Congress, House of Representatives, Hearings Before the Committee on Defense Appropriations, Fiscal Year 1965, Part 3, (Washington: U.S. Government Printing Office, 1965), p. 357.

63. The Washington Post, 10 May 1965, p. A1.

invincible to antimissile defense." In a more significant development, Moscow television broadcast a thirty minute film entitled "Rockets in the Defense of Peace" on 10 May. Included in the film was footage of Soviet antimissile defense, including testing stations and computer centers supplying data for interceptions and launching of defensive missiles. One sequence showed the firing of an antimissile missile and its interception of an incoming reentry vehicle at an unspecified altitude.⁶⁴ This particular incident marked the first time the present Soviet leadership had resorted to the typically Khrushchevian technique of military threat by demonstration in their manipulation of the antimissile defense dialogue.

The fall of 1965 produced indications from the Soviets that they were moving toward additional deployment of antimissile defense and upgrading the numerical strength of their strategic offensive forces. In an important article which appeared in September, Lieutenant Colonel E. I. Rybkin attacked General Talensky's fatalism with regard to nuclear war. While he failed to refer specifically to Khrushchev, his arguments strongly challenged the implications of the former leader's overall strategic policy. He emphasized that steps must be taken to minimize or eliminate damage to the Soviet Union in the event of nuclear war. To accomplish this goal, he advocated two avenues, either quick defeat of the enemy through massive offensive operations or the development of

64. The New York Times, 11 May 1965, p. 3.

"new means of defense."⁶⁵ He further emphasized that these avenues were not incompatible. Defensive progress was intimated by Marshal Malinovsky in a quotation which appeared in October 1965:

With the solution of the problem of destruction of ballistic missiles in flight, troops of the PVO have started to have at their disposal all necessary means for reflecting and breaking down strikes of the enemy from the air in distant approaches to defended objects. They have become a reliable shield against nuclear attack.⁶⁶ [Italics mine]

Three other articles discussing development of offensive weapons appeared in November. None of these articles mentioned antimissile defense capabilities. On 14 November, Colonel General Vladimir Tolubko, First Deputy Commander of the Strategic Rocket Forces, stated that the Soviet Union was developing long-range intercontinental missiles which could be maneuvered in flight: "Even more powerful rockets, which can deliver nuclear warheads over ballistic as well as orbital trajectories and are capable of maneuvering on trajectory are under development."⁶⁷ It was unclear from this

65. Lieutenant Colonel E. I. Rybkin, "On the Essence of World-wide Missile-Nuclear War," Kommunist Vooruzhen-nykh Sil (Communist of the Armed Forces), September 1965, p. 58.

66. Sovetskiy Patriot (Soviet Patriot), 27 October 1965. Quoted from Y Yedynom Staryu (In One Formation), (Moscow: 1965).

67. Tass International Service in English, 1305 GMT, 13 November 1965.

statement whether these rockets were in the design or test phase. General Tolubko admitted that the United States was also moving in this direction. To bolster these claims, General Tolubko's immediate superior, Marshal Krylov, pointed out the continuous improvement in offensive rocket technology as evidenced by the display of new solid-fuel intercontinental missiles in the parade honoring the 48th Anniversary of the Bolshevik Revolution.⁶⁸

Despite these signs from the Soviet military which appeared to indicate progress to a higher strategic offensive and defensive posture, powerful forces in the United States persisted in their efforts to avoid an increasing arms race. In November, the White House Conference on International Cooperation urged adoption of a three year moratorium on production and deployment of antimissile defenses. It described United States deployment of any antimissile defense as potentially destabilizing in that it would cause both the United States and the Soviet Union to increase their offensive missile forces. This finding was in direct conflict with the opinion of the Joint Chiefs of Staff, who had unanimously recommended deployment.⁶⁹ The Conference's position and findings were supported enthusiastically by The New York

68. Address by Marshal N. I. Krylov on Artillery and Rocket Troops Day, Pravda, 19 November 1965, p. 2. See also an unsigned article "Defense Capacity of the Soviet Union," Voyennyye Znaniya (Military Knowledge), November 1965.

69. The New York Times, 24 November 1965, p. 1.

Times in editorials published on 24 and 26 November.⁷⁰

Despite these recommendations, domestic pressure on the Johnson Administration to move toward antimissile defense deployment grew in the first half of 1966. In late January, Secretary McNamara appeared before the Senate Armed Services Committee. He testified that the Chinese would not be able to threaten the Continental United States significantly before 1975. After stating that antimissile defense deployment still did not appear to be prudent on cost-effectiveness grounds, he advocated further postponement of the deployment decision:

On the basis of our present knowledge of Chinese Communist nuclear progress, no antimissile deployment decision need be made now. However, the development of the essential components should be pressed forward vigorously.⁷¹

Should deployment become necessary, he indicated that he favored a "light" system designed to cope with the relatively smaller missile attacks of the sort the Chinese might be capable of launching in the 1975-80 period. Clearly, he made every effort to avoid challenging the Soviet Union directly.

In the April budgetary hearings before the Congress, the debate which had previously occurred in 1963 was repeated.

70. The New York Times, 24 November 1965, p. 38 and 26 November 1965, p. 36.

71. The New York Times, 26 January 1966, p. 1.

On 22 April, the Senate proposed the addition of \$167.9 million to the Johnson Administration's budget request for antimissile defense deployment. The sum was earmarked for procurement of long leadtime items needed for antimissile missile production. The Johnson Administration had requested \$446.0 million for antimissile defense research and development.⁷² On 25 April, Senator Henry M. Jackson appeared on the television program "Meet the Press." He outlined the limited Soviet deployment of antimissile defenses and estimated that it would take the United States three years to catch up in this vital area.⁷³ Further debate in the Senate on 27 April recommended an immediate start in production procurement. On 29 April, the Senate approved the addition to the budget. Spurred by an unconfirmed 29 April press report of additional Soviet defensive deployments around Leningrad and Volgograd which subsequently proved to be in error,⁷⁴ the House of Representatives approved the addition to the budget on 4 May. The Johnson Administration made no comment on whether this appropriation would be spent. Previous such additions had not been utilized. Only funds for research and development had been actually allocated.

Soviet statements regarding antimissile defense in early 1966 seemed to move toward a more realistic appraisal of its

72. The Washington Post, 22 April 1966, p. A1.

73. The New York Times, 25 April 1966, p. 3.

74. The New York Times, 29 April 1966, p. 4.

capabilities than had previous claims. On 18 February, in an article prepared for the Yugoslav military newspaper Narodna Armija (People's Army), Marshal Malinovsky stated, "We have everything necessary for successfully combatting enemy missiles at distant approaches to protected objectives."⁷⁵ This exact wording was repeated in a Moscow statement⁷⁶ by General P. F. Batitsky, First Deputy Chief of the Soviet General Staff, indicating that the precise wording had been previously established. On first reading, the above statements seem innocuous enough, but when analyzed carefully the typically ambiguous formulation offers some possible insights. The key phrases are "everything necessary," which upgrades Marshal Malinovsky's October 1965 assertion that the Air Defense Forces "have started to have at their disposal all necessary means" to a more comprehensive capability; "distant approaches," which also appears in the October assertion and implies a system using interception above the atmosphere; and "protected objectives," which paraphrases the October phrase "defended objectives" and represents a tacit admission that Soviet antimissile defense coverage was in fact selective, not truly comprehensive. The February assertion, when compared to that made by Marshal Malinovsky four months earlier, supports the October statement's movement toward some

75. Yugoslav Press Service Tanyug, 18 February 1966.

76. Tass, 18 February 1966.

slight increase in realism. The major difference was one of improved system readiness, from an early deployment stage to a more comprehensive capability. Later, at the 23rd Congress of the Communist Party of the Soviet Union in April, Marshal Malinovsky's defense address continued this trend toward more realistic estimates of Soviet Air Defense Force readiness when he claimed that "Soviet air defense means reliably ensure the destruction of any aircraft and many rockets of the enemy."⁷⁷ The key phrase in this statement was the use of "many missiles" instead of the previous blanket assertion of impenetrable protection of defended areas. The above statement implied that the Soviet Union had become confident of their ability to extract an entry price from any attacker and has proven to be the most consistently used formulation on Soviet air defense capabilities in the period 1968-71.⁷⁸

The trend toward realism was carried further in a 19 April address by Air Defense Forces Commander Marshal Sudets. He began by describing United States strategy as one which stresses the "development of nuclear weapons and means of air and space attack, which have been assigned the main role in attacking targets during the initial period of war."⁷⁹ He then proceeded to describe United States strategic forces in

77. Pravda, 3 April 1966, p. 3.

78. For a complete listing of Soviet antimissile defense formulations from 1960-69, see Appendix A.

79. Sovetskaya Roosiya (Soviet Russia), 19 April 1966.

a particularly grim fashion, culminating the "threat assessment section" of his article with an equally pessimistic prognosis: "The Pentagon's plans envisage a further increase in nuclear rocket means, as well as the reequipping of the Air Force with modern high-altitude supersonic aircraft."⁸⁰ Given the threat faced by the Soviet Union, Marshal Sudets concluded that Air Defense Force responsibilities were "enhanced" and crucial to the successful prosecution of a general war:

Their task consists of preventing the breakthrough of enemy means of air and space attack...and thus of insuring the viability of the state and the capability of other branches of the armed forces to deal a destructive blow to the enemy.⁸¹

Turning specifically to antimissile defense, his statement reflected Marshal Malinovsky's October and February phrasing somewhat:

Models of our rockets were put on display at the 1964 and 1965 military parades. They are capable of destroying enemy means of air and space attack at any altitude and at great distances from the protected areas and objectives.⁸²

Significantly, Marshal Sudets pointed out that "models" of antimissile rockets had the defensive capability rather than

80. Sovetskaya Rossiya (Soviet Russia), 19 April 1966.

81. Ibid.

82. Ibid.

a deployed system, thus intimating that full operational capability had not then been achieved. Viewed in the context of his article, which seemed to be attempting to make a case for increased responsibilities for the Air Defense Forces, and considering that Marshal Sudets was subsequently removed from his seat on the Central Committee in April, failed to appear at May military gatherings, and finally was relieved of his position as Commander of the Air Defense Forces (PVO) by General Batitsky in July when he retired from active duty,⁸³ it seemed that these statements may have overstepped the guidelines for "antimissile realism" or policy advocacy for forces under his responsibility. Marshal Sudets had been a particularly ardent supporter of antimissile defenses. While such advocacy would necessarily follow from his personal and bureaucratic interests, he may have objected too strenuously to decisions allocating resources to other branches, probably the Strategic Rocket Forces from subsequent force posture developments. The performance of Soviet-supplied air defense equipment during the early phases of the air war in North Vietnam may also have been a contributing factor.

A notable hardening in the international situation was legitimized at the 23rd Congress of the Communist Party of the Soviet Union. The general line adopted was indicated by the Resolution of the Congress regarding the Report of the

83. Fritz Ermarth, "The ABM Race," Radio Free Europe Research Report, 13 December 1966, p. 7.

Central Committee:

Under conditions in which the aggressive forces of imperialism are exacerbating international tension, and foci of conflict are appearing, the CPSU will henceforth raise the level of vigilance of the Soviet people in order that the armed forces of the USSR may be always ready to conduct a reliable defense of the achievements of socialism and to deliver a decisive rebuff to any imperialist aggressor.⁸⁴

In the same report, General Secretary Leonid I. Brezhnev stated:

...the party will henceforth reinforce the defense capability of the Soviet Union, multiply the might of the armed forces of the USSR, and maintain a level of military preparedness such as will reliably guarantee the peaceful labor of the Soviet people.⁸⁵

Premier Alexei N. Kosygin's address on economic matters presented the question in more practical terms when he stated that the material well-being of the Soviet people would be greater if the "international situation was not seriously complicated by the U. S., which unleashed and keeps intensifying the aggressive war in Vietnam."⁸⁶ He asserted that

84. General V. Ivanov, "The 23rd Congress on the Military Threat and Strengthening Defense Capability," Kommunist Vooruzhennykh Sil (Communist of the Armed Forces), May 1966, p. 8. General Ivanov has served as the Commandant of the Higher Military Academy of the General Staff. In prior assignments, he was Commander of PVO forces, Baku Military District from 1956-59 and First Deputy Director of the Soviet General Staff from 1959-65.

85. Pravda, 7 April 1966.

86. Pravda, 6 April 1966.

"these threats to universal peace" had compelled the Soviet Government to increase defense expenditures, with the result that funds for the development of consumer goods industries would have to be reduced.

A statement by Marshal Malinovsky in his report on the state of the Soviet armed forces aroused great Western interest and speculation. During the rocket section of his speech he made the following observation, "We stand calmly and confidently on guard, especially now that the blue belt in the defense of our state has been completed."⁸⁷ At the time, it was debated in the West whether this "blue belt" referred to a recently completed around the world cruise of a group of Soviet nuclear-powered submarines or antimissile defenses reportedly being deployed in the northwestern area of the Soviet Union. Subsequent investigation has failed to reveal the exact meaning of Marshal Malinovsky's statement and it has not been repeated.⁸⁸

In an article which appeared concurrently with the 23rd Party Congress, Marshal Sokolovsky made an interesting appeal for an integrated approach to military preparedness:

Of particular importance nowadays is to

87. Pravda, 2 April 1966, p. 2.

88. In support of the antimissile defense theory, see Fritz Ermarth, "Clarification of Malinovsky's 'Blue Belt'," Radio Free Europe Research Report, 21 July 1966. The basis for Ermarth's analysis lies in the position of the statement in the missile portion of the speech.

ensure that the nuclear forces, the Air and Missile Defense Forces, and the entire system of reconnaissance, observation, and warning, are at high combat readiness. Victory in modern war may be attained by active, decisive operations and full use of all forces and means, and precise cooperation between them.⁸⁹

With regard to antimissile defense systems, the post-23rd Party Congress statements continued the more realistic approach. The article by General Ivanov cited above repeated Marshal Malinovsky's phrase:

Our antiaircraft troops are developed to the point where they can guarantee the destruction of any type of aircraft, and many missiles, of an enemy. This department of the armed forces is equipped with the latest high-efficiency AA missile systems and aviation complexes for the interception and destruction of enemy units.⁹⁰

By late April, even Marshal Sudets had picked up the new formulation when he stated, "At the present time the air defense weapons insure the reliable destruction of any aircraft and many missiles of the enemy."⁹¹ In the same article, Marshal Sudets also repeated the post-23rd Party Congress theme

89. Marshal V. Sokolovsky, "Soviet Views on Modern Military Strategy," Kommunist Vooruzhennykh Sil (Communist of the Armed Forces), April 1966, p. 64.

90. General Ivanov, "The 23rd Congress," Kommunist, p. 65.

91. Marshal V. Sudets, "How the Party Leads," Vestnik Protivovozdushnoy Oborony (Air Defense Journal), May 1966, p. 3. See also the address by Marshal Rodion Ya. Malinovsky to the Budapest garrison reported in the Hungarian press agency MTI, 22 April 1966.

of increased readiness:

The imperialists examine the air space as one of the most opportune and accessible paths for an attack on the USSR, for unleashing aggression. Namely for this purpose new things are being developed in the USA and the weapons they have for air or space attack are being perfected. ...all this obliges the PVO troops to show the greatest alertness, to constantly maintain such a level of combat readiness which would frustrate an imperialist attack.⁹²

The 1966 May Day Parade contained no new military weapons for the first time in three years. The order of appearance was the same as that followed in the 7 November 1965 parade.⁹³ At that time, this "reluctance" was thought to be explained by a desire of the regime to withhold new developments for a sensational display on the 50th Anniversary of the Bolshevik Revolution in November 1967. This contention seemed borne out by the similar lack of innovations in the November 1966 parade.⁹⁴ However, Western observers did not assume that Soviet antimissile defense efforts were frozen. In late June, "Pentagon sources" divulged that a defensive arc was being constructed in the northwestern part of the Soviet Union. This arc was reported to be over 300 miles in

92. Marshal V. Sudets, "How the Party Leads," Vestnik Pro-tivovozdushnoy Oborony (Air Defense Journal), May 1966, p. 3.

93. The New York Times, 2 May 1966, p. 1.

94. The November 1967 parade did contain new weapons, such as the SS-9 ICBM and SS-N-6 submarine-launched ballistic missile, but no real "sensations."

length and became known as the "Tallinn Line" for the Estonian city which is located at its southern end. The sources did not clearly state that this system was antiaircraft or antimissile in character, or whether it was a combination of both. It was emphasized that the system had not reached operational status at that time.⁹⁵

Soviet emphasis on the need for increased military vigilance continued in the summer of 1966. On 19 May, General Secretary Brezhnev asserted that "a high level of defense preparedness and nonflagging military vigilance are most essential in the present international situation."⁹⁶ Less than one month later, Brezhnev expanded this theme in his election address:

In the struggle against the threat of war and plots of imperialism, our first duty is to strengthen our country.... In today's conditions our country is obliged to devote even more effort and attention to strengthen its defensive might. We shall keep the armed forces of the land of the Soviets at the highest level of contemporary military technology and continue to maintain our army's superiority so that at any moment it will be ready to deliver a crushing rebuff to the aggressor. The Party frankly tells the people that expenditures on armaments are a great burden for our budget, for our national economy. We would like to accelerate the movement toward communism.... But the situation does not yet permit us to do so....⁹⁷

95. The New York Times, 20 June 1966, p. 1.

96. Izvestia, 19 May 1966.

97. Pravda, 11 June 1966.

In his "Order of the Day" for Soviet Navy Day, Marshal Malinovsky repeated the theme that "American imperialism" had aggravated international tension and credited the CPSU and the Soviet Government with taking steps to strengthen the Soviet military in response to a serious threat to world peace.⁹⁸ On 3 August, Premier Kosygin addressed the Supreme Soviet on international problems. He discussed the deteriorating relations with the United States as "worthy of special mention." Although Soviet military capabilities were not discussed, he acknowledged that "military spending weighs heavily on the working people."⁹⁹ The regime apparently felt a need to legitimize its military expenditures to the Soviet people.

In an article which appeared in an East German journal, General Pavel Kurotshkin, Director of the Frunze Military Academy, outlined the necessary response of the Soviet military to the increased threat. He postulated that "the character of any nuclear war will be determined by the way it begins."¹⁰⁰ During this early phase of a nuclear war, he emphasized that strategic forces and air defense units would be crucial. However, his emphasis was on the credibility of

98. Krasnaya Zvezda (Red Star), 31 July 1966.

99. Alexei N. Kosygin, "Soviet Foreign Policy Reviewed," Survival, October 1966, p. 325.

100. General Pavel Kurotshkin, "The Soviet Army - A Reliable Guarantee of Peace and Security," Deutsche Aussenpolitik (German Foreign Policy), October 1966, p. 118).

Soviet offensive systems rather than defense:

The strategic missile units now represent the foundation of the Soviet Army. They have been equipped with ICBM's which can deliver nuclear warheads with the destructive power of megatons of TNT to any point on the earth. No rocket defense system could save the aggressor from these fearful weapons.¹⁰¹

In response to the increased threat, he adhered to the post-23rd Party Congress formulation of increased readiness by stating, "We are strengthening our homeland's defense in every way and are continually increasing the firepower of our armed forces."¹⁰²

On 27 October 1966, the Chinese tested a ballistic missile with a nuclear warhead. The official reactions of the United States and Soviet Governments were notably different. The Soviet press reported the event in one sentence: "The Hsinhua News Agency reported that on October 27 China successfully conducted a nuclear missile test in its territory."¹⁰³ No Soviet article has credited the developing Chinese nuclear capability as being a threat to the Soviet Union. The response of the United States was far more overt and within two weeks the debate had moved from Chinese nuclear tests to

101. Kurotshkin, "The Soviet Army," Deutsche Aussenpolitik, October 1966, p. 1183.

102. Ibid.

103. Izvestia, 29 October 1966, p. 5. The same sentence appeared in a Tass release on 27 October and in Pravda, 28 October 1966.

Soviet antimissiles. In a news conference on 10 November, Secretary McNamara stated that there was "considerable evidence" that the Soviet Union was deploying such a system.¹⁰⁴ He added that although its effectiveness was not known, the United States was proceeding on the assumption that the system was effective and emphasized that there was "no question about our capability of penetrating the Soviet defenses with both our missiles and aircraft." To counter this development, Secretary McNamara advocated increases in United States offensive forces and the development of the so-called "third generation" offensive missiles, the submarine-launched Poseidon and the land-based ICM (Improved Capacity Missile), both of which were being designed to penetrate sophisticated defenses. This counterproposal was viewed as an attempt to "pre-empt" pressure from Congress for immediate deployment of Nike-X. Secretary McNamara persisted in his recommendation to delay the deployment decision:

We considered the possible deployment of such systems, both against the Chinese Communist nuclear threat and against the Soviet offensive systems as well. We concluded that it is much too early to make a decision for deployment against the Chinese threat and we have not arrived at a decision on any other deployment. We will continue our discussions on this subject in the weeks to come.¹⁰⁵

104. The New York Times, 11 November 1966, p. 19.

105. Ibid.

Clearly the United States debate remained to be resolved.

The end of 1966 marked a significant change in the anti-missile defense dialogue, particularly on the part of the United States which took the initiative in trying to transform the dialogue into an arms control agreement on strategic forces. The period from 1960 to 1966 set the stage for those efforts. The Soviet deployment of antimissile defenses had begun and the successors to Khrushchev had avoided threats based on its real or potential existence. They seemed reluctant to inflame United States opinion which could have forced the Johnson Administration to reignite an accelerated arms race, bringing the superior resources of the United States economy to bear. Within the United States, the pressures for a decision on antimissile defense deployment had increased substantially. The consensus of opinion held that should arms control attempts fail to provide an agreement, the decision to deploy some degree of antimissile defense would be virtually certain.

Chapter 3

Toward Arms Control:

Initial Bargaining, December 1966-September 1967

During the period from December 1966 to November 1969, the United States-Soviet antimissile dialogue underwent a qualitative shift. The United States took the initiative in moving the dialogue from solely one of "competitive armaments" and began to move toward arms control of these systems. This period was further marked by rapid expansion of Soviet offensive missile forces, relative inactivity with regard to further expansion of existing Soviet antimissile defense installations around Moscow, the United States decision to deploy antimissile defenses, and attempts by both sides to link arms control possibilities to the resolution of other key international disputes. Whether such "linkages" were employed to avoid or defer movement on strategic arms control or that manipulation of arms control possibilities seemed to promise improvements or solution of these disputes remains unclear. What is clear is that Soviet linkage to the Vietnam situation and subsequent United States linkage to the invasion of Czechoslovakia and the Middle East struggle retarded the movement toward formal arms control negotiations.

In a news article which appeared in The New York Times at the outset of the period,¹ William Beecher outlined the

1. The New York Times, news article by William Beecher, 8 December 1966, p. 1.

situation, an analysis generally representative of Washington opinion. The Soviet defense system was seen to be located around Moscow with other minor sites around Leningrad and in northwestern Soviet territory. In terms of capability and readiness, the Soviet system was believed to be of the area defense type using exoatmospheric interception of incoming warheads and was thought to be ready for operations by the end of 1967. In contrast, while Beecher reported Secretary McNamara's confidence that United States research and development efforts had kept the nation technologically competitive, a fully operational antimissile defense was seen to require six years of development and construction before it could be ready. The overall tone of this article was measured and generally free from emotion or policy advocacy. However, by this time the public response to Secretary McNamara's November admission of Soviet defensive deployments had begun to build. On 9 December, the respected columnist James Reston reflected the concurrent American distaste for another round in the arms race in an editorial entitled "Let 'em Eat Missiles." He pointed out that the costs of an antimissile defense system interfered with both Moscow's and Washington's promises to raise the living standards of their poorest citizens. The Soviet deployment was credited to an increased influence of the Soviet military and a determination to prove Soviet invulnerability to attack during the forthcoming 50th Anniversary of the Bolshevik Revolution celebration. Reston's

personal frustration over future prospects was evident:

Never mind that one more upward spiral of the arms race would probably leave both sides with no more real security than they have now. Never mind that after both sides have an antimissile system the race will start over to produce new more expensive and more sophisticated missiles that can penetrate the antimissile system. Never mind that the costs will cut deeper into the poverty programs. The Administration must not be vulnerable to political attack. It must have an effective antipolitical missile system even if it cannot get an effective antiballistic missile system. And let the poor eat missiles and live in shelters!²

On 18 December, William Beecher attempted to explain the rationale of those in the Administration who favored a United States antimissile defense deployment. In assessing the Soviet deployment decision, these analysts reportedly saw the Soviet retreat in the Cuban Missile Crisis as a humiliating incident that the Soviets were determined not to repeat. They saw a secure second strike force as the logical response for the Soviets to take and noted that this appeared to be what the Soviet Union had done.³ While this analysis stressed the role of the real or perceived strategic balance on the national leaderships in crisis periods, it omitted reference to other key factors which had influenced the outcome

2. The New York Times, editorial by James Reston, "Let 'em Eat Missiles," 9 December 1966, p. 46.

3. The New York Times, news article by William Beecher, 18 December 1966, p. E-3.

of the Cuban Missile Crisis. In addition to the roughly six to one strategic missile delivery system advantage enjoyed by the United States in October 1962, numerical superiority of about four to one in strategic bomber aircraft, less vulnerable strategic forces, conventional superiority in the area surrounding Cuba, short lines of communication for those conventional forces, and the mutually perceived will of the United States to resort to the use of military force if necessary also had a major impact in the behavior of the adversaries. In addition to its strategic force buildup, the Soviet Union's force posture developments in the post-1962 period had included qualitative and quantitative improvements in naval and mobile land forces in an apparent attempt to provide increased flexibility to respond to future crises in a conventional manner. The conclusion that the proper Soviet strategic force posture response would be to seek secure second strike forces was, in effect, imputing the United States analysis of the Crisis to that of the Soviet leadership. As subsequent Soviet deployments have indicated, it is likely that the Soviets saw strategic superiority from their perspective as a highly effective instrument when coupled with a demonstrated or perceived will to use it.⁴

4. Uri Ra'anan, "Soviet Global Politics and the Middle East," Naval War College Review, September 1971, p. 21. See also the forthcoming pamphlet, The Deterioration of the US-Soviet Strategic Balance: Some Political Implications, by the same author to be presented to the Senate Committee on Governmental Operations, Subcommittee on National Security in February 1972.

A smaller group of Administration officials saw the possibility of such a development at that time. They were concerned that in some future crisis, with the Soviet Union possessing parity or some degree of numerical superiority in strategic offensive forces and limited antimissile defenses, the Soviet leadership might conclude that the strategic balance had sufficiently shifted and that the United States must back down since it might not survive a nuclear exchange while the Soviet Union might. Those advocating United States deployment of antimissile defenses stressed the function of reducing the chance of a Soviet or Chinese miscalculation about the probable outcome of such an exchange in the absence of United States defenses.

Against this background of increased Soviet capabilities and growing public emotion over the antimissile defense deployment issue, the Johnson Administration began to move toward arms control overtures in mid-December. On 16 December, "officials reported" that the Administration was considering making an appeal for an antimissile defense deployment moratorium.⁵ On 20 December, John Finney in The New York Times reported that the Geneva disarmament negotiations would be the site of United States-Soviet discussions on a moratorium.⁶ The initial impetus for United States arms control efforts

5. The Washington Post, 16 December 1966, p. A1.

6. The New York Times, news article by John Finney, 20 December 1966, p. 3.

was a desire to avoid antimissile defense deployment and its incident expenses. Although the broad economic effects of President Johnson's "guns and butter" policy had not yet become apparent at that time, there was considerable reluctance to add additional expenses to a Defense Budget already swollen by Vietnam war costs. Given the numerical superiority of United States strategic offensive forces at that time (1054 land-based intercontinental ballistic missiles to about 450, 656 submarine-launched ballistic missiles to about 130, and 520 long-range heavy bombers to about 150),⁷ an antimissile moratorium without limits on offensive forces would have allowed the United States to avoid large expenditures for strategic forces for several years even if the Soviet Union sought to catch up in numerical strength of offensive forces. The subsequent move to widen the arms control appeal to include all strategic weapons systems could have reflective of a desire to codify this situation or, more realistically, a recognition that the Soviet Union would have little incentive to limit itself in the one area where it held a numerical advantage without reciprocal concessions by the United States in areas where it enjoyed numerical superiority.

The first official reference to possible arms limitation discussions was made by Secretary of State Dean Rusk in a 21

7. The Military Balance 1967-68, (London: The Institute for Strategic Studies, 1967), p. 45. Figures cited above are extrapolated from those of July 1967 to reflect the estimated situation in December 1966.

December news conference:

The United States would like to see some means developed to limit the arms race and thus avoid the wholly new major levels of expenditures which would have no perceptible result on the strategic balance.⁸

Although an antimissile defense deployment moratorium was not specifically mentioned, the phrases "some means developed" and "wholly new major levels" point to arms control measures and antimissile defense or increased offensive inventories to overwhelm such defenses respectively.

On 21 December, a United States announcement of an underground nuclear test stimulated an analysis of trends in such testing. In the period since the signing of the Partial Test Ban Treaty in mid-1963, the pace of such testing had increased: for the United States, there were 21 underground tests in 1964, 25 in 1965, and 34 in 1966; for the Soviet Union, 2 tests were detected in 1964, 3 in 1965, and 6 in 1966.⁹ In the case of the Soviets, probably more tests were conducted but not detected. Significantly, during this period the trend was toward larger yields as well as increased frequency. On 27 October 1966, the Soviet Union had conducted a test with an estimated yield of one megaton on Novaya Zemlya Island in the Barents Sea. The 20 December United States test was

8. The Washington Post, 22 December 1966, p. A1.

9. The New York Times, 21 December 1966, p. 26.

described as "nearly as large," officially "one of the largest" conducted by the United States underground and "designed to aid in the development of a warhead for an ABM."¹⁰

On 15 December, Minister of Finance V. F. Garbuzov presented the 1967 budget to the Supreme Soviet. The section on military expenditures was preceded by a typical post-23rd Party Congress assessment of the international situation:

It is the fault of aggressive monopolist circles of the United States that recently the international situation has sharpened, that the danger of a new world war has grown.

Bearing in mind the existing international situation, the CPSU Central Committee and the USSR Council of Ministers were forced to take the necessary measures to further strengthen the defensive might of our fatherland and to increase allotments for the country's defense 1.1 billion rubles compared with the present year. The total expenditures for military maintenance in the USSR state budget is the amount of 14.5 billion rubles, 13.2 per cent of all budgetary expenditures.¹¹

Disregarding the duplicity inherent in Soviet budgetary figures for defense expenditures, in a dialogue of competitive armaments a budget increase is a firm indication of resolve.

James Reston's earlier concern that antimissile defense might become a partisan domestic political issue was borne out by a statement by House Minority Leader Gerald Ford on

10. The New York Times, 21 December 1966, p. 26.

11. Pravda, 16 December 1966, p. 4.

25 December. Noting intelligence reports of Soviet deployments he warned, "It seems to me that we are behind the Soviet Union in this particular project. This could become a serious military crisis if we delay too much longer."¹² He then predicted that Republican Congressmen would support spending for deployment of antimissile defenses despite their general desire to cut Fiscal Year 1968 budgetary allocations.

To counter such pressure, on 27 December "Administration officials" reported that President Johnson was considering a budget option which, should a moratorium on deployment of antimissile defenses not be achieved, would purchase necessary long leadtime items to speed United States deployment.¹³ In addition to its domestic implications as a counter to possible charges of "doing nothing in the face of the Soviet threat," such a move was viewed as a signal to the Soviets of both United States restraint and resolve.

On 29 December, China carried out its fifth nuclear test. The Soviet response was similar to that which had followed previous tests. Pravda carried a one sentence announcement: "Hsinhua has reported that today 'China successfully carried out a new nuclear explosion in the Western part of the country.'"¹⁴ United States response was also tempered. The detonation was reported to be that of a bomb, not missile

12. The Washington Post, 26 December 1966, p. A7.

13. The New York Times, 27 December 1966, p. 1.

14. Pravda, 29 December 1966, p. 3.

delivered as the previous test had been, of several hundred kilotons in yield. No advances from previous tests were noted.¹⁵

Despite this display of American restraint concerning the Chinese threat, more alarming statements followed. On 1 January, physicist Ralph E. Lapp stated that the United States analysts had overestimated the time required for the Chinese to develop their nuclear capability by assuming that they would follow traditional United States methods which stressed perfection through orderly scientific progress.¹⁶ He argued that a "high risk" technical program would significantly alter the analysts' estimates. Citing Central Intelligence Agency reports, Senator Henry M. Jackson supported this contention. He predicted that the Chinese would have intercontinental ballistic missiles by the early 1970's.¹⁷ This timetable was somewhat faster than Administration estimates. He credited this upgrading to Chinese adoption of the recently-developed United States technique of "concurrency," attempting to develop the major components of a complex weapons system simultaneously rather than in sequence. Such a technique was first employed in the development of Polaris missiles and launching submarines.

15. The New York Times, 29 December 1966, p. 1.

16. The Washington Post, 2 January 1967, p. A6.

17. The New York Times, 12 January 1967, p. 10.

The overt adoption of the policy of seeking an arms control agreement on antimissile defenses was begun by President Johnson in his 10 January State of the Union message. The proposal did not directly refer to antimissile defense and implied a willingness to expand the negotiations to cover a larger scope of weapons. He stressed the social costs of the arms race:

The Soviet Union has in the past year increased its long-range missile capabilities. It has begun to place near Moscow a limited antimissile defense. My first responsibility to our people is to assure that no nation can ever find it rational to launch a nuclear attack or to use its nuclear power as a credible threat against us or against our allies. And I would emphasize that this is why an important link between Russia and the United States is in our common interest in arms control and in disarmament. We have the solemn duty to slow down the arms race between us, if that is possible, in both conventional and nuclear weapons and defenses. And I thought we were making some progress in that direction in the first few months I was in office. And I realized that any additional race would impose on our peoples, and on all mankind, for that matter, an additional waste of resources with no gain in security to either side. And I expect in the days ahead to closely consult and seek the advice of the Congress about the possibilities of international agreements bearing directly on this problem.¹⁸

There was little that was truly new in these proposals. The antimissile defense deployment moratorium had been given tacit Presidential support in late 1965 when it was recommended by

18. Weekly Compilation of Presidential Documents, 16 January 1967, p. 35.

a White House Conference on International Cooperation.¹⁹ However, previous efforts directed toward limitations and freeze proposals on strategic offensive forces had been countered by Soviet statements that arms control was a Western notion and that they were only interested in disarmament.²⁰

The Soviet response to President Johnson's address was measured. The arms control section was ignored. Instead, the Soviet press emphasized the budgetary announcements: "New budget expenditures are of a downright militarist nature."²¹ This statement supported the post-23rd Party Congress line of increased Western threat. President Johnson's professed desire to stop the Cold War were pictured as being contradicted by his actions, particularly in Vietnam:

According to him the aim of the United States is to stop the cold war and not to continue it. As such, the President's words could be greeted with great satisfaction. The USSR has firmly and consistently advocated liquidation of the cold war and the affirmation of the principles of peaceful coexistence regarding relations between countries with different social systems. The statement made by the U. S. President on putting a stop to the cold war, however, flagrantly contradicts Washington's actions. One cannot with one hand give false statements on the desire to put a stop to the cold war and with the other give orders

19. The New York Times, 1 December 1965, p. 1.

20. Lincoln P. Bloomfield, Walter C. Clemens, and Franklyn Griffiths, Khrushchev and the Arms Race, (Cambridge: The M. I. T. Press, 1966), p. 141.

21. Tass International Service in English, 0749 GMT, 11 January 1967,

for the extension of armed aggression in Vietnam and the escalation of the bombings of the DRV, a fraternal socialist country.²²

Releases in the Eastern European press were more specific.

The Czech response stressed the absence of specific disarmament proposals:

...Johnson expressed concern about the arms race and the hope that it would be possible to find common interests with regard to the problem of disarmament. He did not, however, submit concrete proposals concerning this serious problem.²³

The Hungarian press specifically referred to antimissile defenses and repeated the concern over the absence of specifics:

Johnson carefully dismissed the demand of military circles that the U. S. should establish an antimissile system at great expense, although he admitted that the Soviet Union had such a system. He pointed out that instead of continuing with the arms race, disarmament was needed. However, he did not expand his views on this point.²⁴

The Yugoslav release, made several days later which allowed for additional analysis, treated President Johnson's proposal as nothing new and degraded its possibilities for promoting a reduction in international tensions. It cited statements

22. Moscow in Rumanian to Rumania, 1600 GMT, 12 January 1967.

23. Prague Domestic Service in Czech, 1000 GMT, 11 January 1967.

24. Budapest MTI Domestic Service in Hungarian, 1100 GMT, 11 January 1967.

by Secretary McNamara that the prospects for reliable anti-missile defenses were remote. Given these circumstances, President Johnson's statement was seen as an attempt to stifle domestic debate which amounted to an endorsement by President Johnson of Secretary McNamara's stand on increasing offensive forces as the best response to the deployment of antimissile defenses by a potential adversary.²⁵

On 22 January, a particularly interesting commentary by Lubos Dobrovsky was carried by Radio Prague. Dobrovsky began by stating that the Soviet antimissile defense deployment had caused great anxiety in the United States. He then repeated the 1964 Talensky argument: "What kind of danger might threaten whom from an installation whose sole purpose is to prevent enemy rockets with nuclear warheads from hitting their target and destroying it?"²⁶ However, he avoided the simple Talensky argument that such a system threatened no one and proceeded with a fairly sophisticated discussion of strategic stability:

The answer is not so easy as it might appear at first glance. First of all, such a system, if really effective - if it genuinely reduces the risk of drastic consequences of a nuclear strike and insofar as it is owned by only one side - fundamentally alters the balance of power. The equilibrium of risk is disturbed when one side enjoys an advantage which the

25. Belgrade Tanyug International Service in English, 2111 GMT, 16 January 1967,

26. Prague Domestic Service in Czech, 1200 GMT, 22 January 1967.

other side will not permit. Hence the other side is compelled to do the same thing as its adversary: to make its own defensive system at least equally effective, or to improve the quality and quantity of its aggressive weapons to such a level as to enable those weapons to break through the opponent's defense.²⁷

He then outlined a scenario where a nation with superior offensive strength could adopt a controlled use of offensive weapons to "damage and intimidate" an opponent. Given such a situation (and the inference that this described the United States-Soviet confrontation was obvious), the building of an antimissile defense system would be "actually nothing but a mere equalization of the balance of forces." However, he felt that the United States would not accept nuclear parity with the Soviet Union and was even more unwilling to resume the arms race since building antimissile defenses would only result in another race in offensive systems. The ultimate result would be mutual destruction economically. Given this situation, he returned to the Talensky formulation:

The way out does not consist of an answer to the question of whether missile systems should or should not be adopted. It is rather the question of whether to have nuclear weapons. A balance of power at whatever level is a far too unstable a guarantee to be regarded as an assurance. An equilibrium of forces is nothing but makeshift. Assurance is in doing away with the causes of danger - in nuclear disarmament.²⁸

27. Prague, 1200 GMT, 22 January 1967.

28. Ibid.

Having made this point, he assessed the possibilities of such an agreement and concluded that without a cessation of hostilities by the United States in Vietnam an agreement was impossible.

Contrasted with the fairly articulate reporting of the East Europeans, the Soviet press in January and early February was barren of response to President Johnson's tacit proposal with one exception. In the 19 January issue of Za Rubezhom, its editor, Daniel F. Kraminsky, rejected President Johnson's claim that the United States and the Soviet Union had a common interest in avoiding a new round in the arms race:

On this issue there has been and always will be a great difference between the two countries. Arms control is strictly an American position, a position that the Soviet Union has criticized, opposed, and still opposes. The Soviet Union has been striving for disarmament, not for control over armaments.²⁹

An extensive assessment of President Johnson's address was carried by Tass on 24 January.³⁰ No mention was made of the projected negotiations on strategic weapons.

On 17 January, Marshal Malinovsky delivered an address which repeated the post-23rd Party Congress formulations on

29. Daniel F. Kraminsky, editorial in Za Rubezhom (Life Abroad), 19 January 1967. Also printed in Izvestia, 19 January 1967, p. 4.

30. Tass International Service in English, 2030 GMT, 24 January 1967.

the possibilities of war and increased United States aggressiveness. Faced with this increased threat, the Marshal repeated the Soviets' solution for improving the strength of their defenses. He stressed the familiar line of "hardware solutions;" priority to strategic missiles and ballistic missile-launching submarines, development of the ground forces, and improved air defense. However, it is interesting to note that Marshal Malinovsky's statement did not repeat the "reliable destruction of all the enemy's aircraft and many of his missiles" phrase which had been rigidly adhered to since the 23rd Party Congress. Instead, he reverted to an earlier formulation: "The air defense forces are capable of reliably protecting the country's territory against an aerial attack of the enemy,"³¹ a more ambiguous statement.

This virtual silence, broken only by statements which resorted to broad, ambiguous generalities seemed to indicate that during the period from 10 January to 10 February, the Soviet leadership was attempting to determine a suitable response to President Johnson's tacit proposal. The somewhat bizarre events of the period between 10 and 22 February (which will be traced below) indicated that a major split, with roots in the earlier period, developed over this issue.

Following President Johnson's State of the Union remarks, United States diplomatic efforts developed rapidly. The

31. Tass International Service in English, 1607 GMT, 17 January 1967.

newly appointed Ambassador to the Soviet Union, Llewellyn E. Thompson, arrived in Moscow the day following the address and stated that he had a "special message" from the President to the Soviet leaders.³² On 20 January, he delivered a letter from President Johnson to the Soviet Foreign Ministry. On the same day, the State Department reported that Secretary Rusk had been meeting with Soviet Ambassador Anatoly F. Dobrynin to discuss a possible antimissile defense deployment moratorium. Summing up these conversations, the State Department release stated, "The Department has no reason to believe that the Soviets are not seriously considering the President's expressed interest in halting an ABM arms race."³³ It was reported that the Rusk-Dobrynin meetings had been going on since 31 December 1966, when Ambassador Dobrynin had returned to Washington from consultations in Moscow. This timing suggested that President Johnson's State of the Union remarks may have been privately encouraged by Ambassador Dobrynin before their delivery, but no hard evidence is available to support such a hypothesis. On 23 January, Ambassador Thompson presented his credentials to Soviet President Nikolai V. Podgorny. Following the ceremony they met in private for one hour. Details of their discussions were not made public.

Against this diplomatic background, an upsurge of discussion of offensive forces appeared in the United States. The

32. The New York Times, 15 January 1967, p. 5.

33. The New York Times, 21 January 1967, p. 1.

number of minor revelations made during this period constituted an attempt to quiet domestic debate and apply some pressure to the Soviets. Taken individually, these revelations were not particularly significant and several had been inferred at earlier dates, but not officially confirmed. On 19 January, for example, the Pentagon announced that the submarine-launched Poseidon missile then being developed would carry multiple warheads.³⁴ Although fairly widely discussed previously by civilian analysts, multiple warhead developments had formerly been highly classified and not officially discussed. The same release also referred to skewed terminal entry³⁵ as a means of penetrating antimissile defenses for the first time in an official statement. The 1966 Atomic Energy Commission Annual Report also referred to multiple warheads for the first time. However, the most important revelation contained in this report was that 1966 underground tests had verified hardening modifications made to existing United States offensive missile warheads. No specific mention was made of the Soviet defensive system, but the message

34. The Washington Post, 20 January 1967, p. A1. No attempt was made to differentiate between multiple reentry vehicles (MRV) and multiple independently-targeted reentry vehicles (MIRV) at this time.

35. Skewed terminal entry employs devices which cause reentry bodies to deviate from their normal ballistic trajectories as they reenter the earth's atmosphere. Assuming that these bodies have been tracked above the atmosphere by radar and their trajectories and impact points predicted, the deviation from the predicted paths complicates terminal interception.

was clear:

The continuing development objective of improving the penetration capability of strategic missile warheads - by further decreasing warhead vulnerability to nuclear environments generated by antiballistic missile countermeasures - has resulted in modification programs for some warheads in the stockpile.... Nuclear tests in 1966 verified laboratory computations and designs for achieving improvements in hardness.³⁶

This statement was intended to degrade the credibility of an exoatmospheric defense system which utilizes gamma and x-rays to destroy incoming warheads. United States intelligence analysts had then concluded that the Soviet system was an exoatmospheric system.³⁷ The Atomic Energy Commission budget request for Fiscal Year 1968 showed an increase from \$851.0 million to \$914.0 million for "military applications" of atomic energy.³⁸ This increase was justified as necessary to construct a new underground test site in the Aleutians for the expressed purpose of testing large yield weapons.³⁹

A late January proposal by the informed and influential Senator Henry M. Jackson seemed to indicate the probable Administration response to a Soviet failure to negotiate

36. U. S., Atomic Energy Commission, Major Activities in the Atomic Energy Programs, January-December 1966, (Washington: U. S. Government Printing Office, 1967), p. 105.

37. The New York Times, news article by Hanson Baldwin, 5 February 1967, p. 1.

38. The New York Times, 25 January 1967, p. 22.

39. Ibid.

an antimissile defense moratorium. In that contingency, Senator Jackson proposed a point defense around the Titan II and Minuteman intercontinental ballistic missile bases and a thin area defense of the remainder of the nation.⁴⁰ Such a proposal, which subsequently became the key rationale for President Nixon's Safeguard antimissile defense system, was depicted as one which implied restraint and the desire to maintain the then-existing situation of mutual deterrence through the maintenance of secure second strike forces. The thin area defense was pictured as an anti-China defense.

Secretary McNamara's annual Defense Posture Statement, released on 25 January, underscored Senator Jackson's remarks. Antimissile defense deployment was pictured as having three general purposes: protection of American cities against a Soviet attack, protection against a future Chinese attack, or the protection of strategic retaliatory forces against a Soviet attack.⁴¹ Secretary McNamara cited the third purpose as being the most compelling should the Soviets refuse to cooperate in a moratorium. However, he insisted that forces programmed to 1972 would be able to absorb a well-coordinated Soviet surprise attack and still inflict 86 million deaths on the Soviet Union in retaliation.⁴² It was obvious that he

40. The Washington Post, 21 January 1967, p. A1.

41. Robert S. McNamara, Fiscal Year 1968-72 Defense Program and Fiscal Year 1968 Defense Budget, Department of Defense monograph, 25 January 1967, p. 71.

42. Ibid., p. 73.

considered such a figure adequate to maintain deterrence. While arguing that an anti-Chinese deployment could be postponed, he cautioned that Chinese defense capabilities were improving rapidly when he stated, "On the basis of recent evidence it appears possible that they may conduct either a space or long-range ballistic missile test before the end of 1967."⁴³ Nevertheless, he persisted in his opinion that it was "unlikely" that the Chinese could deploy a significant number of operational intercontinental ballistic missiles before the mid-1970's. On 5 February, this view was disputed by William Beecher in an article which cited "American analysts" who expected that China would have its first operational intercontinental missiles by about 1970 and a force of 50 or more missiles by 1975.⁴⁴ On 10 February, Albert Wohlstetter supported this estimate and urged the deployment of an anti-Chinese antimissile defense system to enhance the credibility of proposed United States guarantees to Japan and India to relieve the pressures on these nations to build their own nuclear forces.⁴⁵

Restrained pressure on the Soviets was evident in President Johnson's Fiscal Year 1968 budget proposals submitted to the Congress on 24 January:

43. McNamara, Fiscal 1968-72 Defense Program, p. 75.

44. The New York Times, news article by William Beecher, 5 February 1967, p. 11.

45. The New York Times, 11 February 1967, p. 11.

In 1968, we will: continue intensive development of Nike-X but take no action now to deploy an antimissile defense; initiate discussions with the Soviet Union on the limitation of ABM deployments; in the event those discussions prove unsuccessful, we will reconsider our deployment decision. To provide for actions that may be required at that time, approximately \$375 million has been included in the 1968 budget for such purposes as defense of our offensive weapons systems.⁴⁶

This statement attempted to serve notice to the Soviets of the sincerity of the moratorium proposal while establishing tentative limits to a United States response should an agreement not be reached. The policy of maintenance of an "assured destruction" capability based on invulnerable retaliatory forces was maintained. In addition to the standby funds for antimissile defense deployment, the budget proposal included \$421.0 million for continued development of the Nike-X system, more than \$1 billion for production and deployment of Poseidon, funds for improvement of penetration and payload capability of Minuteman II missiles and procurement of Minuteman III missiles, and "vigorous research and development of more advanced strategic missiles, reentry vehicles, and penetration aids."⁴⁷

Additional speculation in the United States press on the nature of the Soviet antimissile defense deployment became available in late January and early February. On 29 January,

46. The Washington Post, 25 January 1967, p. A7.

47. The New York Times, 25 January 1967, p. 17.

it was reported that "American officials" estimated total Soviet expenditures on antimissile defense at four or five billion dollars.⁴⁸ This figure included the costs of the earlier 1962-3 system around Leningrad which had been abandoned. In contrast, United States expenditures to 1967 totalled about two billion dollars. Given these substantial allocations by the Soviets, it was considered unlikely that the Soviet leadership would consent to dismantle then-existing defensive installations. A freeze on further deployment was seen as the best possible Soviet response to United States moratorium efforts. In an extensive article which appeared on 5 February, Hanson Baldwin supported this contention.⁴⁹ However, he cited a growing concern that the Soviet Union would drag out any negotiations which might take place while vigorously pressing ahead with its strategic weapons programs while the United States delayed further deployments. Baldwin also outlined a division within the United States "intelligence community" over the nature of Soviet defensive deployments. He reported that intelligence experts agreed that antimissile defense deployment had begun, but were divided on its extent and capabilities. A general consensus

48. The New York Times, news article by Hedrick Smith, 29 January 1967, p. 1.

49. The New York Times, news article by Hanson Baldwin, 5 February 1967, p. 1. This article also contained an excellent analysis of the uncertainties involving nuclear effects discussed earlier in this paper. See above, pp. 9-11.

existed that an antimissile defense of one type was being completed in the Moscow area. A somewhat different system was reported to be in a lesser stage of completion in other parts of the Soviet Union. These sites were reportedly located in an arc across the northwestern corner of the Soviet Union (the "Tallinn Line"), with additional more scattered sites east of the Urals and in the Ukraine. Available evidence, which stressed the relatively unsophisticated radars associated with these sites, suggested to some an anti-aircraft or anti-cruise missile mission. However, its location in greatest strength across the intercontinental ballistic missile flight paths from the United States to the western part of the Soviet Union pointed to an antimissile mission for other analysts.

On 9 February, the Defense Department reported that the Joint Chiefs of Staff had recommended "heavy protection" against missiles for fifty of the largest cities in the United States.⁵⁰ The cities were not named. The Joint Chiefs had recommended a "building block" approach to antimissile defense deployment, beginning with point defense of intercontinental ballistic missile bases and a thin area defense composed of exoatmospheric Spartan missiles sufficient to defend against a Chinese attack or a modest Soviet strike. Later, Sprint point defense missiles could be added to the city defenses in a phased program. The rationale for this

50. The Washington Post, 10 February 1967, p. A2.

recommendation was based upon two principal arguments: that some missile defense would reduce the chances of a Soviet or Chinese miscalculation and, that if deterrence failed, such a system would limit death and destruction to the United States.

Official Soviet statements in early February continued to be restrained with regard to Soviet antimissile defense capability. Marshal Zakharov, Chief of the Soviet General Staff, in a discussion of the 1967 Soviet defense budget, failed to directly refer to air defense capabilities. The normal formulations regarding the Strategic Rocket Forces, Ground Forces, and nuclear-powered submarines were delivered, but in place of the normal reference to air defense the following statement was made: "We are working on questions concerning military preparedness of weapons and the mastering of new equipment and armaments."⁵¹

The first extensive Soviet discussion of United States antimissile defense progress and its rationale since President Johnson's January remarks appeared on 6 February. The increased tempo of the United States domestic debate was viewed as an attempt to create support for increased military spending and to convince Americans and West Europeans that a preventative war was necessary:

51. Tass International Service in English, 0134 GMT, 2 February 1967.

The Defense Secretary said outright that the United States had foreseen the possibility of a rocket attack and had taken proper measures. He declared that the United States was spending money not on a system of defense but on offense. In other words, Robert McNamara made it clear that the United States would not wait for enemy missiles to attack. ...Since the United States and other Western countries have insufficient missile defenses, it is argued, why wait for an attack and waste money on defense? Would it not be simpler to strike first?⁵²

The commentator, Gelly Shakhov, then turned to the moratorium proposal:

Lately a view has been expressed more and more frequently by some U. S. officials that all countries should abandon antimissile defenses. What is noteworthy is that they advocate the rejection of defensive weapons only, not of rocket weapons in general. The United States, which has stockpiled strategic weapons, suggests that other countries reject all means of defense, a cunning conception indeed.⁵³

Cutting through the top veneer of propaganda in this statement, clearly timed to reach the United Kingdom the evening before Premier Kosygin's state visit to London, several significant observations can be made. First, no claims of Soviet antimissile defense capability were made, although it was inferred that some nation had such a defense and that nation was not "Western." Second, no description of United

52. Radio Moscow in English to the United Kingdom, 2000 GMT, 6 February 1967.

53. Ibid.

States technical difficulties, the normal theme of Soviet discussions of United States progress, was made. Third, the use of "some U. S. officials" seemed to indicate an unwillingness to associate President Johnson with the moratorium proposal. Although the Soviet motivation is unclear, perhaps this was an attempt to degrade the sincerity of such a proposal or to attack it without attacking President Johnson personally. However, the Soviets had previously not felt constrained to question President Johnson's sincerity on the Vietnam issue. Fourth, limitation of any defenses was predictably tied to limitation of offensive forces.

The latter point was reinforced by Premier Kosygin's press conference remarks made in London on 9 February. In the first official response to the moratorium appeal, he repeated the familiar Talensky and general and complete disarmament arguments:

It seems to me that the system that wards off an attack is not a factor in the arms race. On the contrary, it is a factor that reduces the possibility of the destruction of people. That is why I think it is a mistake to look at this question the way some people do. According to some theories that are gaining ground in the world, the question is posed in the other way: Which is cheaper, to destroy man, that is, to have an offensive weapon that destroys people, cities, entire states, or to have a weapon that prevents such destruction? According to these theories, the cheaper system should be adopted.... The antimissile system probably costs more than an offensive weapon. But these questions are unrelated. You see, there are other ways of solving this problem, more serious ways that would really

help mankind.... It would be much better to proceed to a discussion and to real pressure that would result in a ban on nuclear weapons and the destruction of nuclear weapons.⁵⁴

Beyond the familiar formulations, the overall impression of this statement was one of a willingness to talk, but no indication of a desire to negotiate specifically on a moratorium. Premier Kosygin was restrained with respect to claims of Soviet antimissile defense capability, but attempted to make it clear that he was speaking from a position of strength: "We are ready to so negotiate on nuclear disarmament not because we have little of them, but because we have a lot of them."⁵⁵ The comparison with relative United States progress in antimissile defenses was obvious. The thinly-veiled reference to United States cost-effectiveness criteria for defense programs also attempted to degrade United States efforts.

Premier Kosygin's remarks were generally neglected in the Soviet press until 15 February when Fyodor Burlatsky, writing on disarmament and nuclear non-proliferation in Pravda, turned to antimissile defense. He began by citing United States actions:

Now the United States is approaching a new stage in the arms race. This concerns the planned establishment of an antimissile

54. The New York Times, 10 February 1967, p. 15.

55. Ibid.

system, which according to the calculations of Western specialists will come to about forty billion dollars.⁵⁶

He then "quoted" Premier Kosygin's London remarks in a particularly liberal manner:

Speaking at a press conference in London, A. N. Kosygin declared that the Soviet government is prepared to discuss the question of halting a further arms race - in the field of offensive as well as defensive weapons.⁵⁷

United States analysts interpreted these remarks by Burlatsky as indicative of increased Soviet willingness to negotiate on the existing strategic balance.⁵⁸

Two days later, "high Soviet authorities" reported that Burlatsky had "made a mistake."⁵⁹ Such confusion is somewhat rare considering the sensitivity of such crucial issues and suggested broader implications. Burlatsky is an experienced and normally authoritative press commentator who previously had been used to "float policy trial balloons." It is therefore obvious that he had received some guidance from high Soviet authorities prior to the printing of the article. Premier Kosygin's termination of official Soviet silence on President Johnson's moratorium proposal required that some

56. Pravda, 15 February 1967, p. 2.

57. Ibid.

58. The New York Times, 16 February 1967, p. 1.

59. The Christian Science Monitor, 18 February 1967, p. 3.

overall guidance appear in official publications. To further substantiate the argument that Burlatsky acted on the advice of higher authority, it was noted that several hours after Pravda (the text of which requires official Party approval) appeared, Radio Moscow repeated the Burlatsky statement.⁶⁰ Two possible explanations for these events seemed likely. The first is that the Soviet leadership changed its mind in the period between 15 and 17 February so that the Burlatsky statement had to be reversed. A second explanation seems more plausible. Given the five week silence following President Johnson's remarks up to Premier Kosygin's guarded response in London, the reversion to deliberately ambiguous statements by military leaders during the period of silence, and the reversal of the Burlatsky article, a serious split probably developed over the issue. Perhaps Burlatsky "tipped the Soviets' hand" before a climate for fruitful discussions could be created or was "used" by one of the factions. The Soviet officials who informed Western news agencies in Moscow of Burlatsky's "mistake" stated that the leadership's position on arms limitation discussions was negative as would be made clear in a subsequent corrective article.⁶¹ However, this article did not appear, further substantiating a hypothesis

60. Fritz Ermarth, "'Pravda' Commentator Positive on ABM Moratorium," Radio Free Europe Research Report, 15 February 1967 and "The ABM Plot Thickens," Radio Free Europe Research Report, 20 February 1967.

61. Thomas W. Wolfe, Soviet Power and Europe, 1945-70, (Baltimore and London: The Johns Hopkins Press, 1970), p. 270.

that a serious split on this issue existed at that time.

This contention also seems to be supported by discontinuities which occurred at the outset of a resurgence of Soviet military claims on antimissile defense capabilities in statements timed to coincide with the celebration of the 49th Anniversary of the Soviet Army and Navy. On 20 February, General Pavel F. Batitsky, Commander of the Air Defense Forces, stated that the Air Defense Forces "can reliably protect the country's territory from any enemy air attack."⁶² On the same day, General Pavel A. Kurotshkin, Director of the Frunze Military Academy, took a far less ambiguous stand: "Detecting missiles in time and destroying them in flight is no problem."⁶³ The implication was that the Soviet defenses were impenetrable. This implication was quickly refuted by three statements which appeared on 22 February. In his Army and Navy Day address, First Deputy Defense Minister Marshal Andrei A. Grechko returned to the late 1966 formulation: "Modern means of antiaircraft defense assure the destruction of any aircraft and many kinds of rockets."⁶⁴ The same phrase was repeated by Defense Minister Marshal Malinovsky on 23 February.⁶⁵ Marshal Vasily I. Chuikov, Commander of

62. Tass International Service in English, 0734 GMT, 20 February 1967.

63. Tass International Service in English, 1148 GMT, 20 February 1967.

64. Izvestia, 22 February 1967, p. 1.

65. Pravda, 23 February 1967, p. 2.

Civil Defense Forces, more specifically refuted General Kur-otshkin: "Unfortunately, there are no means yet that would guarantee the complete security of our cities and most important objectives from the blows of the enemy's weapons of mass destruction."⁶⁶ Deputy Defense Minister Marshal Ivan K. Bagramyan retreated to the former contention that antimissile defense was a potential rather than a current capability in a loose paraphrasing of the "all aircraft and many missiles" formulation:

Important changes have been undergone by the country's antiaircraft defense. The means which it disposes insure the reliable repulsing of any aircraft. In recent years a realistic possibility has arisen for us of effectively carrying out antirocket defense.⁶⁷

Other statements made by military leaders regarding air defense during the Armed Forces Anniversary substantiated the hypothesis that firm guidance was absent. Marshal Zakharov, Chief of the General Staff, failed to mention air defense, stressing the destructive power of offensive strategic weapons.⁶⁸ Marshal Sokolovsky implied operational capability: "Our antiaircraft defenses have efficient missile intercepting systems."⁶⁹ Marshal Kasakov, Commander of Missile Forces

66. Pravda, 23 February 1967, p. 2.

67. Moscow Domestic Service in Russian, 1120 GMT, 22 February 1967.

68. Neus Deutschland, East Berlin, 23 February 1967.

69. Pravda, 22 February 1967, p. 3.

and Artillery, also stressed offensive forces and interestingly returned to the 1962-65 formulation: "The Soviet Union has solved the complicated and highly important problem of destroying enemy missiles in flight."⁷⁰

Thus, in the space of three days, the six-week silence of the military on air defense was broken and the resulting statements made by military leaders ranged from General Kur-otshkin's later refuted assertion of impenetrable defense to Marshal Chuikov's tempered pessimism. Other leaders showed apparent disagreement on system capabilities or neglected to mention it at all. That no firm guidance from higher officials was given prior to the publication or delivery of these statements seems certain, indicating that a division of opinion on this issue probably extended into the highest levels of the civilian leadership. Apparently, military leaders were truly divided over the importance of antimissile defense and in this case were allowed considerable latitude in voicing their opinions. In terms of the dialogue with the United States, this lack of coordination seems to refute the assumption that Burlatsky was censured for having "tipped the Soviets' hand" by indicating that the Soviet Government was ready to discuss arms limitation prior to a coordinated campaign of military capability claims designed to prepare the way for a Soviet offer to negotiate on strategic weapons from

70. Moscow Domestic Service in Russian, 1135 GMT, 22 February 1967.

a position of greater relative strength. It seems more plausible to suggest that even as late as 23 February, the Soviet leadership had not decided what response should be made to President Johnson's moratorium proposal and therefore no firm guidance on antimissile defense statements could be handed down.

Although decisions on how to proceed on the deployment of antimissile defense systems was a central point in the assumed deliberations, the entire spectrum of conventional and strategic weapons programs were probably included. Such a review would be expected to heighten internal bargaining over future force postures since various military factions and organizations would view such a debate as an opportunity to alter previous decisions to their perceived advantage. With respect to strategic weapons, hypothetical stances of the various elements of the military bureaucracy could have been to take the following positions:

- a. The Strategic Rocket Forces were then deploying increased numbers of intercontinental ballistic missiles (mostly the large capacity SS-9 and the smaller SS-11, similar to Minuteman but liquid-fueled), a program which had apparently begun in mid-1966. After a period of relatively low deployment rates from mid-1964 to mid-1966 which saw an increase in this force of 100 missiles in two years, 160 new missiles were added between mid-1966 and mid-1967. The deployment rate was further increased to 340 missiles from mid-1967 to

mid-1968, after which it has stabilized at 210-250 per year.⁷¹ It seems reasonable to assume that the 1967-8 deployment rate had been established by early 1967. Aware of this prospect and viewing the announced intention of the United States to complete deployment of the Minuteman system with a total of 1000 launchers by mid-1967, the Strategic Rocket Forces probably strongly opposed any negotiations at least until numerical parity could be achieved in early 1968 with then-existing deployment rates. However, as the proclaimed keystone element of the Soviet armed forces, it seems more likely that Strategic Rocket Force spokesmen argued for continued deployments to attain a numerical superiority. Subsequent statements by its Commander, Marshal Krylov, would seem to support this contention. With respect to antimissile defenses, they may have argued that potential United States antimissile defense deployment could be retarded by holding out the possibility of arms control negotiations and that resources programmed for Soviet antimissile defense deployments should be diverted to an increased deployment rate of offensive missiles. The apparent suspension of construction on the Moscow antimissile defense sites in 1968 and the increased rate of offensive deployments

71. The Military Balance 1971-72, (London: The International Institute for Strategic Studies, 1971), p. 56. See figure 1 on the following page based on the same source.

Figure 1.

United States and Soviet Strategic Missile Force Levels and Annual Rates of Changes, 1961-71 (July figures for each year)

<u>Year</u>		<u>United States</u>		<u>Soviet Union</u>	
		Number	Change	Number	Change
1961	ICBM	63	—	50	—
	SLBM	96	—	Some	—
1962	ICBM	294	198	75	25
	SLBM	144	48	Some	—
1963	ICBM	424	130	100	25
	SLBM	224	80	100	—
1964	ICBM	834	410	200	100
	SLBM	416	192	120	20
1965	ICBM	854	20	270	70
	SLBM	496	80	120	0
1966	ICBM	904	50	300	30
	SLBM	592	96	125	5
1967	ICBM	1054	150	460	160
	SLBM	656	64	130	5
1968	ICBM	1054	0	800	340
	SLBM	656	0	130	0
1969	ICBM	1054	0	1050	250
	SLBM	656	0	160	30
1970	ICBM	1054	0	1300	250
	SLBM	656	0	280	120
1971	ICBM	1054	0	1510	210
	SLBM	656	0	440	160

from mid-1967 to mid-1968 would support this interpretation.

- b. The Air Defense Forces probably pressed for continued deployment of antimissile defenses, arguing that further Soviet progress in this area could be expected to enable the Soviet Union to extract reductions in United States offensive forces if negotiations were initiated and to serve as a hedge against the failure of negotiations. It is also possible that the relief of Marshal Sudets as Air Defense Force Commander in July 1966 may have indicated an earlier decision to proceed with antimissile defenses on considerably less than a crash basis and that his replacement, General Batitsky, sought to use this period to upgrade the priority accorded to his branch based upon more bureaucratic than strategic grounds. Whatever the motivation, the Air Defense Forces probably opposed negotiations, particularly those involving a freeze or reduction of its limited antimissile defense capability.
- c. The Theater Forces could have been expected to favor strategic arms limitation talks on purely bureaucratic grounds, expecting that the resources thus freed could be used to upgrade its capabilities. Perceived increases in United States General Purpose Forces capabilities as a result of their experience in actual combat in Vietnam probably exacerbated its concern for its relative state of readiness. However, qualitative

drawdowns of United States forces assigned to North Atlantic Treaty Organization (NATO) units and those available to respond in areas other than Southeast Asia should have tempered this concern, at least in the short-run.

- d. The Navy probably shared the opinion of the Theater Forces with one notable qualification. Since the first "Yankee" class ballistic missile-launching submarine appeared in mid-1968, the construction program for these ships was undoubtedly in progress in early 1967. Although it is not known whether operational units of this class are under overall naval command or are subordinated to the Strategic Rocket Forces, the the missile-launching submarines represent one of the Soviet Navy's key contributions to the overall Soviet defense effort. However, the counterpart United States force, the Polaris submarines, apparently enjoyed such high prestige in United States strategic analysis that the Soviet Navy could have concluded that the conduct of strategic arms limitation negotiations would not result in reductions in this area and would perhaps enhance the importance of sea-based strategic systems. Such a perception would have enhanced its bureaucratic interest in diverting resources from the Strategic Rocket and Air Defense Forces to submarines or other naval programs.

One important caveat should be attached to this hypothesis.

if the Soviet military had been faced with real opposition to what its various elements considered to be their broader interests, such as the maintenance of emphasis on heavy industry or downgrading the perception of the threat imposed by the West, these bureaucratic differences would have been suppressed. The overall military position in such a case would presumably have been to oppose negotiations on the limitation of strategic arms. The divergent statements traced above with respect to antimissile defense during this period seem to indicate that the military did not feel compelled to close ranks at this time. If this analysis is correct, their overall viewpoint was not threatened. As will be discussed in more detail below,⁷² other nonmilitary elements of the Soviet bureaucracy have interests which are involved in any decision to engage in discussions with the United States on possible limitation of strategic arms. At this time, it appears that the assumed military viewpoint, which stressed a continued strategic buildup with a delay in the initiation of negotiations until a strategic balance closer to parity could be achieved, carried the day. By any general measure of military capability other than numerical strength of conventional forces, geographical proximity to potential crisis areas, and deployed antimissile defenses, the Soviet Union was distinctly inferior to the United States. Only a demonstrated willingness on the part of the United States to reduce its existing

72. See below, pp. 296-303.

forces would have been likely to induce the Soviet Union to negotiate at this stage.⁷³ While the subsequent Soviet build-up could have been viewed as likely to induce force level responses by the United States based on the Soviet experience in the "Bomber Gap" and "Missile Gap" periods, the Soviet leadership appears to have taken Secretary McNamara's statements concerning United States restraint for granted and concluded that the United States would not respond as it had to previous Soviet actions. Delay could thus be expected to improve the overall bargaining strength of the Soviet Union.

During the latter half of February, United States efforts to move the Soviets toward negotiations continued. On 17 February, President Johnson stressed the futility of another round in the arms race which he concluded would leave both the Soviet Union and the United States with the same relative strategic balance. He stated that he was "determined to use all the resources at my command to ...avoid a further mutually defeating buildup."⁷⁴ On 18 February, Ambassador Thompson conferred with Premier Kosygin for over two hours. No report of the subjects discussed was released, but it seemed justified to assume that the antimissile defense deployment issue

73. Uri Ra'anani, "Soviet Global Politics and the Middle East," Naval War College Review, September 1971, p. 21. See also the forthcoming pamphlet The Deterioration of the US-Soviet Strategic Balance: Some Political Implications by the same author to be presented to the Senate Committee on Governmental Operations, Subcommittee on National Security, in February 1972.

74. The Washington Post, 18 February 1967, p. A1.

was included. Secretary McNamara, appearing on the 20 February BBC "Panorama" television program, stated that "it may well be desirable" for the United States to build a thin area antimissile defense to guard against the Chinese nuclear potential and protect the United States strategic retaliatory forces against any attack. However, in an obvious signal to the Soviets, he repeated his earlier stand that the possibilities of defending cities against the missile attack of a major nuclear power were futile.⁷⁵ On 21 February, State Department Press Secretary Robert J. McClosky reported that the Kosygin-Thompson discussions had included the antimissile defense deployment moratorium proposal. He then hinted that the prospective discussions might be expanded to include offensive weapons: "These continuing contacts reflect interest on both sides in arriving at an understanding on strategic missile problems."⁷⁶ On 26 February, General Earle B. Wheeler, Chairman of the Joint Chiefs of Staff, repeated his rationale for United States antimissile defense deployment: "Deterrence is a combination of weapons and a state of mind. I feel that a measure of defense adds to the posture of our deterrent."⁷⁷

United States efforts to reach an agreement with the Soviet Union were rewarded by some tangible progress on 2

75. The New York Times, 21 February 1967, p. 7.

76. The Washington Post, 22 February 1967, p. A1.

77. The New York Times, 27 February 1967, p. 27.

March. At a news conference, President Johnson made the following announcement:

I have received a reply from Chairman Kosygin to my letter of January 27. This reply confirmed the willingness of the Soviet Government to discuss means of limiting the arms race in offensive and defensive nuclear missiles.⁷⁸

In subsequent questioning, President Johnson made it clear that the United States was moving into these discussions with the option to proceed with antimissile defense deployment fully open should the negotiations not lead to an early agreement. The mood was one of greatly restrained optimism. He concluded his remarks by emphasizing that United States research and development would continue.

Repeating the pattern following Premier Kosygin's London news conference, the Soviet press omitted President Johnson's announcement of the impending arms limitation discussions from its reporting of his press conference. However, again following the pattern of the aftermath of the President's State of the Union Address, the East European press reported the Johnson announcement. The Polish took the lead:

At last night's press conference in Washington, President Johnson stated that the U. S. Government is about to begin talks with the Soviet Government on limiting the arms race in rocket missiles, offensive as well as defensive - the so-called antimissiles.⁷⁹

78. The New York Times, 3 March 1967, p. 14.

79. Warsaw Domestic Service in Polish, 0500 GMT, 3 March 1967.

This report, which directed itself to factual reporting of the President's remarks rather than news analysis, correctly stated that the talks would begin in Moscow at an undisclosed date. A slightly later Hungarian release avoided specifics regarding the content of the Johnson-Kosygin exchange and cited the economic pressures of a resumed arms race as having compelled the two leaders to seek another option: "The two superpowers must slow down this race as soon as possible to use the tremendous sums needed for missile-building programs for more productive purposes."⁸⁰ The release was optimistic about the prospects for future negotiations. Taken together, these articles represented a fairly realistic and optimistic East European response to the Johnson-Kosygin exchange.

The Soviet silence on the prospective negotiations persisted. The election speeches delivered by Party leaders in early March did not refer to any Soviet-United States contact on this issue. General Secretary Brezhnev stressed the correctness of the 23rd Party Congress line on the increased imperialist threat, but concentrated the bulk of his foreign policy discussion on events in West Germany and China.⁸¹ Premier Kosygin specifically credited the United States with having created the accelerated arms race:

80. Budapest MTI International Service in English, 0909 GMT, 3 March 1967.

81. Moscow Domestic Service in Russian, 1410 GMT, 10 March 1967.

The United States has continued the arms race and has even increased its pace. For the first time in postwar years, direct U.S. military expenditures reached vast figures - 70 billion dollars. An even larger sum - over 75 billion dollars - has been requested by the U.S. Government in the form of allocations for the current year. Naturally, in this situation the Soviet Union could not lessen its attention to questions of defense. We have also had to increase allocations for military needs.⁸²

Although Premier Kosygin devoted a section of his address to illustrations of Soviet efforts to reduce international tension, prospective discussions with the United States on any issues were not included.

In the absence of Soviet statements during the remainder of March, United States commentators began to express doubts about the sensibility of an antimissile defense deployment moratorium. On 15 March, the influential Air Force Association, a civilian-military group which favors a high state of military preparedness, expressed concern that the urgent pressures of Vietnam operations were obscuring the United States' long-term strategic requirements. Thus, in their words, the nation was "beginning to be exposed, at worst to a surprise nuclear attack, at best to nuclear blackmail."⁸³ To support this contention, the Association pointed out that offensive missile accuracy improvements threatened the hardened Minuteman silos, that underwater detection breakthroughs

82. Pravda, 6 March 1967, p. 3.

83. The New York Times, 16 March 1967, p. 10.

could negate the value of Polaris submarines by making them vulnerable to counterforce attacks, that nuclear effects possibly known only to the Soviet Union could neutralize incoming United States warheads, and that antimissile defense possibilities had been degraded before all avenues of then-existing technology had been examined. Clearly, in their opinion, negotiations on strategic weapons systems were ill-advised.

On 21 March, the Senate approved the appropriations bill for military procurement for Fiscal Year 1968. Included in this bill were the standby funds requested by President Johnson to cover the contingency that discussions with the Soviets on antimissile defenses would not prove successful. In its report on this bill, the Senate Armed Services Committee expressed concern that the Soviet Union was merely buying time with its professed willingness to conduct discussions:

The Committee considers that it would be unwise to permit these negotiations to be extended interminably ...and if ... an agreement cannot be concluded within a reasonable period, the Committee strongly believes that the United States should begin procurement for deployment of an antiballistic missile defense system.⁸⁴

Implicit in this statement was an awareness that the agreement to negotiate did not commit the Soviet Union in any way, but while negotiations were in progress acted as a political and psychological barrier to antimissile defense efforts in

84. The New York Times, news article by Hanson Baldwin, 25 March 1967, p. 12.

the United States. Nevertheless, it constituted a warning to the Soviet Union that efforts to prolong the prospective negotiations unnecessarily would place their continuation in jeopardy.

In the 30 and 31 March editions of Krasnaya Zvezda, Lieutenant General Ivan Zavylov challenged the emphasis placed on nuclear weapons involved in planning for modern war:

A fetish should not be made of nuclear weapons. The new methods and forms of armed struggle, arms, and military material best serve the winning of victory over the enemy when they are being used by a people and army conducting a war of national liberation.⁸⁵

Rather than full reliance on nuclear weapons, which he conceded have required "a cardinal, revolutionary change of existing views and principles in all fields of the art of war," he argued for forces trained and supplied for action with or without nuclear weapons. The unstated corollary was that funds should be proportionally diverted from strategic to theater forces. He did not refer to President Johnson's initiative or Premier Kosygin's London press conference, but implied military opposition to any limitation of antimissile defenses by arguing strongly for strategic defense in overall Soviet military posture.

On 31 March, Marshal Rodion Ya. Malinovsky died of

85. Tass International Service in English, 1935 GMT, 30 March 1967.

cancer. He was buried with high honors on 3 April. Rumors of his illness had begun to circulate before he was hospitalized after his final public appearance at the military parade on 7 November 1966. In the months before his death, he continued to issue proclamations but the bulk of his former duties were carried out by Marshal Andrei A. Grechko, First Deputy Defense Minister. It seems likely that the terminal nature of Marshal Malinovsky's illness was determined in the early fall. This contention seems to be supported by some changes in important military posts beginning in October when General Batitsky was named as Marshal Sudets' successor as Commander of the Air Defense Forces and named as a Deputy Defense Minister⁸⁶ and Marshal Krylov, Commander of the Strategic Rocket Forces, was promoted to First Deputy Defense Minister. On 22 December, it was announced that Marshal Kiril Moskalenko, who had commanded the Strategic Rocket Forces from 1960 to 1962, had been reappointed a Deputy Minister of Defense.⁸⁷ Prior to this announcement, it had not been known in the West that he had been dropped from his Deputy Defense Minister post when Khrushchev removed him from the Strategic Rocket Force command in April 1962, presumably over the decision to place strategic missiles in Cuba.

86. Krasnaya Zvezda (Red Star), 29 October 1966.

87. Tass International Service in English, 1826 GMT, 22 December 1966. Normally the Soviet Defense Ministry is composed of a Minister of Defense, two First Deputy Ministers, and eight Deputy Defense Ministers. These numbers may vary slightly.

Immediately following the burial services for Marshal Malinovsky, the Soviet civilian leadership took steps to establish the guidelines for the role of the military under his successor. On 4 April, General Secretary Brezhnev and Premier Kosygin met with the Central Committee and military leaders. While no text of Brezhnev's address was released, it was reported that he had discussed the international situation and "some questions of military development and the training and education of Army and Navy personnel."⁸⁸ He assured the military that, while promoting a "peace-loving foreign policy," the leadership would "continue to show constant concern for the strengthening of the defensive might of the Soviet state."

A 6 April article in Krasnaya Zvezda more specifically discussed party-military relations. After a typical historical analysis of these relations, a thinly-disguised warning was offered: "An important role in strengthening Party leadership of the Armed Forces was played by the October 1957 Plenum of the CPSU Central Committee."⁸⁹ Significantly, this was the Plenum which removed Marshal Zhukov from his post as Minister of Defense, accusing him of "Bonapartism," failure to subordinate the military to Party leadership. The article

88. Moscow Domestic Service in Russian, 1900 GMT, 4 April 1967.

89. Colonel A. Babin, "The Party - Leader of the USSR Armed Forces," Krasnaya Zvezda (Red Star), 6 April 1967, p. 1.

then proceeded to outline the "present stage of social development" and how it affected party-military relations. First, the author concluded that a future war between socialism and capitalism would be a nuclear war:

In connection with the threat of such a war, the extremely complicated and responsible tasks emerged of working out correct views on its character and special features, a correct assessment of the alignment of class forces on the international scene, of profound analysis and estimate of the world military-political and military-strategic situation, and the adoption of reliable and resolute means to repel the aggressor and fully smash him. The growing complexity of these tasks will undoubtedly increase even more the role and responsibility of the CPSU.⁹⁰

Second, the technical revolution had complicated the tasks of military planners and required new approaches to the development of the various military services. Third, the 23rd Party Congress had established that:

...the defensive might of the state depends on the state of its economy, that modern weapons are becoming increasingly complicated and expensive, and that their production requires a high standard of science and technology Therefore, there also arises the complex tasks of working out a correct military-economic and military-technical policy, the most expedient organization and location of military production, and of determining properly substantiated proportions concerning the manufacture of the various types of weapons and material conforming to the interests of the reliable

90. Babin, "The Party," Krasnaya Zvezda (Red Star), 6 April 1967, p. 1.

defense of the country. Naturally, this factor also conditioned the enhancement of the CPSU role in military organization.⁹¹

Finally, modern warfare had increased the need for the "spiritual fortitude" of both civilians and the military. Lenin's emphasis on the Party's role of instilling consciousness in the people was invoked in support of the need for increased Party activity within the military.

The immediate effect of this article was to create speculation in both the West and East European press that Marshal Malinovsky's successor as Minister of Defense would be a civilian. Dmitry F. Ustinov, a high Party official who had specialized in arms production, was mentioned as the likely candidate.⁹²

This speculation was terminated on 12 April when the Soviet Union announced that Marshal Grechko had been appointed Minister of Defense.⁹³ Having laid down the guidelines for Party supremacy over the military, the leadership apparently did not choose to antagonize the military by appointing a civilian to this post over the obvious heir, Marshal Grechko.

91. Babin, "The Party," Krasnaya Zvezda (Red Star), 6 April 1967, p. 1.

92. See The New York Times, news article by Raymond H. Anderson, 7 April 1967, p. 1.; Prague Domestic Service in Czech, 1800 GMT, 7 April 1967; Belgrade Tanyug International Service in English, 2103 GMT, 6 April 1967; and "No McNamarsky Yet," The Economist, 28 March 1967.

93. Tass International Service in English, 1852 GMT, 12 April 1967.

However, two factors seem to point to the probability that that this decision was not taken lightly. The nature of Marshal Malinovsky's illness must have alerted the leadership to the necessity of choosing a successor. The intensified juggling of high military posts in late 1966 and early 1967 indicated that some sort of a "new order" was being implemented. However, fully twelve days passed before the successor was publicly named. Presumably, additional deliberations were required before the decision to name Marshal Grechko was made.

In addition to Marshal Grechko's appointment, three other senior Soviet military men were promoted to key Defense Ministry posts on 12 April.⁹⁴ These three officers were veteran Army troop commanders in their mid-fifties who, prior to their appointments, held important Theater Force commands. Since these appointments did not result in the replacement of the established heads of the Strategic Rocket and Air Defense Forces, Marshal Krylov and General Batitsky, they seem to have had relatively little effect on the intramilitary power balance. Nevertheless, the fact that these men were not elevated to broader commands or responsibilities was seen as slightly raising Theater Force influence in the highest reaches of the military hierarchy.

Subsequent Soviet statements on general military policy

94. Tass International Service in English, 1902 GMT, 12 April 1967.

during the spring and early summer of 1967 pointed to the continuance of the vigilance and preparedness themes of the 23rd Party Congress. In an address commemorating the 22nd Anniversary of the defeat of Germany in World War II, Marshal Grechko set the tone:

The Communist Party, leading the Soviet People on the path of the building of communism and persistently implementing a Leninist peace-loving policy, at the same time displays unremitting concern for the further raising of the defense capability of our homeland and the strengthening of the Soviet Armed Forces. We have no intention of advertising the combat potential of our Armed Forces, as some military leaders in the West are fond of doing.⁹⁵

He quickly cautioned that such an absence of militant statements should not be misinterpreted as a lack of resolve. In view of the confusion which seemed to have resulted from the diverse February statements regarding antimissile defenses, such a course seemed prudent. The reluctance of the Soviet military to comment openly on prospective arms limitation negotiations indicated that this issue was being intensely debated during this period. The only open reference to anti-missile defense was made by Marshal Chuikov, Commander of Civil Defense Forces, while discussing civil defense preparedness in mid-June after the Arab-Israeli Six Day War:

Soviet military doctrines proceed from the fact that the best means for defending our

95. Pravda, 9 May 1967, p. 2.

state from nuclear attack are our powerful rocket troops and our antimissile missiles and interceptors, which are designed to prevent enemy nuclear missiles and planes from penetrating our air space. They will be destroyed even before they approach our borders.⁹⁶

It is interesting to recall that the same Marshal Chuikov was the most pessimistic of the military leaders to comment on the capabilities of antimissile defenses during the preceding February. Within four months, his public statements had changed from denial of complete protection to impenetrability. His earlier stand could be credited to his bureaucratic need to justify resource allocations to his area of responsibility, the Civil Defense Forces. The motivation behind the June statement was less apparent and could have indicated that at this time the supporters of extensive antimissile defense deployment held the upper hand.

During this period, an open split between the civilian and military leadership of the Department of Defense developed in the United States over deployment of an antimissile defense system. On 6 April, Secretary McNamara discussed differing estimates of whether or not the Soviet Union would deploy a nationwide antimissile defense system at a Pentagon press conference. He stated that, in the absence of information to the contrary, the United States would be forced to base its planning on the assumption that such a defense would

96. Izvestia, 15 June 1967, p. 4.

be built. The impression given was that contrary indications would be welcomed.⁹⁷ On 4 May, in testimony before the House Military Appropriations Subcommittee, General Wheeler, Chairman of the Joint Chiefs of Staff, outlined the differences of opinion between the Joint Chiefs and the Secretary of Defense.⁹⁸ He disagreed with Secretary McNamara's opinion that the Nike-X system would not reduce civilian fatalities in a full-scale nuclear exchange "in any meaningful sense." The Joint Chiefs contended that the system might save 30 to 50 million lives. He further argued that the probable Soviet response to a United States antimissile defense deployment would not necessarily be to increase its offensive missile forces due to the traditional Soviet predilection for strategic defenses. Finally, he stated that a United States antimissile defense deployment would deny the Soviet Union "an exploitable capability" which might result from a mistaken Soviet perception that their existing system had sufficiently eroded the previous United States nuclear advantage. According to General Wheeler, failure to deploy would create:

...strategic imbalance both within our forces and between United States and Soviet forces Deterrence is a combination of forces in being and state of mind. Should the Soviets come to believe that their

97. The Washington Post, 6 April 1967, p. A1. Complete text in The New York Times, 6 April 1967, p. 7.

98. The New York Times, 4 May 1967, p. 1.

ballistic missile defense, coupled with a nuclear attack on the United States, would limit damage to the Soviet Union to a level acceptable to them, whatever that level is, our forces would no longer deter Deployment is essential to maintain the total strategic nuclear capability or balance clearly in favor of the United States.⁹⁹

From the Soviet point of view, the implications of these statements was clear. While believing in a strategy of deterrence, the Joint Chiefs felt a clearcut superiority in strategic weaponry, both offensive and defensive, was necessary to maintain the credibility of that strategy.

Subsequent statements by key Defense Department civilians during the month of May attempted to soften the impact of General Wheeler's testimony. On 10 May, Deputy Defense Secretary Cyrus Vance and Director of Defense Research and Engineering John S. Foster appeared before the Disarmament Subcommittee of the Senate Foreign Relations Committee. Secretary Vance testified that a decision on antimissile defense deployment would not be made during then-current discussions with the Soviet Union regarding a possible freeze of these systems. He further stated that an anti-China antimissile defense system was technically possible.¹⁰⁰ Dr. Foster's testimony was largely concerned with technological factors. He discussed kill mechanisms of potential antimissile defense systems to support his contention that the employment of

99. The New York Times, 21 May 1967, p. 1.

100. The Washington Post, 10 May 1967, p. A1.

x-rays made area defense systems feasible. He specifically stated that an area defense system would provide a defense against small-scale attacks such as China might mount in the next ten years, placing the cost of this system at four billion dollars. In an attempt to insure the credibility of United States offensive forces against the existing Soviet defense, he stated that the defenses around Moscow probably employed an x-ray kill mechanism and that the United States had initiated a program of hardening its warheads against this effect in late 1964.¹⁰¹ In a press conference on 18 May, Secretary McNamara discussed attempts to bring the Soviet Union into strategic arms negotiations. Although he "continued to be hopeful," he reported "very little progress in this area." Repeating his contention that neither the Soviet Union or the United States could defend itself against a heavy attack by the other, he speculated that perhaps the Soviets were determined to maintain a light or thin defense. In an obvious signal to both his Pentagon opponents and the Soviets, he further speculated that it might be easier to agree on some missile defense than none.¹⁰²

The June issue of Fortune carried a strong endorsement of United States antimissile defense deployment. Since this magazine is considered to be representative of big business opinion, its support of a rationale similar to that put forth

101. The Washington Post, 10 May 1967, p. A1.

102. The New York Times, news article by Robert C. Phelps, 19 May 1967, p. 1.

by General Wheeler must have been noted by the Soviets, although not specifically commented upon:

In future psycho-political conflict, which uses weapons as manipulative symbols, the decisive advantage would lie with the side that possesses defenses. Even though these may be ineffective, the undefended side cannot determine this without exposing itself to mortal risk. A situation in which both sides had defenses would balance uncertainties and might well produce greater stability than the previous state of anxious nakedness.¹⁰³

The significant difference between this rationale and General Wheeler's statement was that the Fortune article implied equality while General Wheeler advocated United States superiority.

China conducted its first test of a thermonuclear weapon on 17 June 1967. While it had been correctly predicted by United States officials, it seemed to add a sense of urgency to the deliberations on antimissile defense deployment. Representative Craig Hosmer of the Joint Committee on Atomic Energy reported that the detonation had been a weapon "proof" test, a test of a developed weapon rather than a scientific device, with a yield of two to seven megatons.¹⁰⁴ Several other Congressional leaders, headed by Senator Henry M. Jackson, called for immediate deployment of a thin area defense.

103. Richard J. Whalen, "The Shifting Equation of Nuclear Defense," Fortune, June 1967, p. 85.

104. The New York Times, news article by John W. Finney, 20 June 1967, p. 3.

The Soviet response was the familiar one sentence announcement without commentary: "Hsinhua reports that the first Chinese hydrogen bomb was detonated on June 17, 1967, in the northwestern region of China."¹⁰⁵

In a surprise development, President Johnson and Premier Kosygin met at Glasboro, New Jersey, on 23 and 25 June. Premier Kosygin was in New York to attend sessions of the United Nations. The discussions were conducted in private and were followed by the issuance of brief general communiques. After the second and final meeting, President Johnson held a press conference where he briefly reported that that arms limitation discussions would be held by Secretary of State Rusk and Foreign Minister Gromyko in New York later in the week. Premier Kosygin held a news conference in New York on his return from the second session. After stating that an end to the United States involvement in Vietnam was the first requirement for better Soviet-American relations, he turned to possible strategic arms limitation:

We believe that the discussions should center not on merely the problem of an antimissile defense system. Because, after all, the antimissile system is not a weapon of aggression, of attack; it is a weapon of defense. And we feel therefore that what should be considered is the entire complex of weapons and disarmament questions. Because, otherwise, if - instead of building and deploying an antiballistic missile system - the money is used to build up offensive missile systems, mankind will not stand to gain anything. It will, on

105. Pravda, 18 June 1967, p. 5.

the contrary, face a still greater menace and will come closer to war. And we therefore are in favor of considering the whole range of questions relating to arms and disarmament, and we are ready to discuss that question - the general question of disarmament.¹⁰⁶

This statement is strikingly similar to that made by Premier Kosygin at his February London press conference and indicated that no policy changes had been made during the late winter and spring of 1967. Subsequent information revealed that Secretary McNamara had passionately argued against Soviet antimissile defense deployment at the Glassboro Summit. If his arguments made any impression on Premier Kosygin, it was not apparent at his press conference.

Soviet press reporting of the Glassboro meetings was interesting. The first meeting was briefly reported two days later in a thirty-seven word announcement without commentary.¹⁰⁷ Two days after the second session, an analytical article appeared in Pravda and Izvestia and excerpts from Premier Kosygin's news conference which included his remarks on antimissile defenses were commented upon. The meetings were not directly linked to the subjects discussed at the press conference and neither event was reported in the Soviet military press. The analytical article on the Glassboro meetings reported that "the exchange of opinions touched on

106. The New York Times, 26 June 1967, p. 16. The same quotation was printed in Izvestia, 27 June 1967, p. 3.

107. Pravda and Izvestia, 25 June 1967, p. 1.

several international problems." Included were the Middle East, Vietnam, the Nuclear Non-Proliferation Treaty, and a "general survey of bilateral Soviet-American relations." Arms control and antimissile defense were not mentioned specifically. Although the discussions were described as "useful" for both sides, the United States press was termed "unscrupulous" for concluding that the meeting implied a change in Soviet diplomacy.¹⁰⁸ The omission of antimissile defense from the list of subjects discussed at the Glassboro Summit and its inclusion in the report of Premier Kosygin's press conference may have indicated that a decision to conduct such discussions openly at high levels with United States officials had not been made at that time. It was emphasized that Premier Kosygin's press conference dealt with general subjects and was not necessarily tied to those discussed at the Glassboro meetings.

United States discussions in mid-1967 revealed that the Department of Defense was studying more complex strategic offensive and defensive weapons systems. On 31 May, the Director of the Advanced Research Projects Agency (ARPA), Charles Herzfeld, testified to the House Military Appropriations Subcommittee that the "time is getting ripe again" to reexamine the 1964 decision to suspend research on the "Bambi" boost-phase intercept antimissile defense system.¹⁰⁹ This project

108. Pravda and Izvestia, 27 June 1967, p. 1.

109. The New York Times, 31 May 1967, p. 1.

had been suspended due to projected high costs, but Herzfeld pointed out that recent developments in the reliability of advanced technology may have reduced these costs sufficiently. Another boost-phase intercept system then under feasibility study was the Navy's Seaborne Antiballistic Missile Intercept System (SABMIS), which involved the possible employment of surface ships and subsequently submarines which would carry search and guidance radars and interceptor missiles.¹¹⁰ This system, which was portrayed as supporting rather than competing with Nike-X, was reported to have two unique advantages. First, it was designed to intercept missiles during the boost or mid-course phase of their flight before decoys could be deployed. Second, its mobility would allow it to be moved to areas under threat of ballistic missile attack. The Air Force was also believed to be conducting similar studies of C5A-based airborne systems having similar capabilities.¹¹¹ Also under study was a follow-on offensive missile system designed to survive a counterforce strike on its silos and penetrate known and projected antimissile defense systems, Project Strat-X.¹¹²

In July, Marshal Krylov, Commander of the Strategic Rocket Forces, made the first strong Soviet statement on

110. Aviation Week and Space Technology, 17 July 1967, p. 43.

111. Ibid.

112. The New York Times, news article by William Beecher, 17 July 1967, p. 18.

saturation of antimissile defenses:

The enormous speed, especially when approaching a target, and the various forms of trajectories make the strategic rockets practically invulnerable in flight, especially when used on a mass scale. Moreover, their short flight duration ensures the element of surprise. Therefore a retaliatory strike by Strategic Rocket Forces may have the greatest and decisive importance in a future war, if it is unleashed by the imperialists.¹¹³

Since this formulation was repeated in early September as the United States domestic debate sharpened,¹¹⁴ it was probably made to degrade any presumed anti-Soviet capabilities of a thin United States antimissile defense system. Inasmuch as the Soviet Strategic Rocket Forces had about 720 intercontinental ballistic missiles in October 1967,¹¹⁵ Marshal Krylov's claim seemed credible to United States strategic planners. The phrase "various forms of trajectories" preceded United States admission that Soviet missiles had fractional orbital and depressed trajectory as well as normal ballistic capabilities and probably was also intended to imply a capability to penetrate proposed United States antimissile defenses.

113. Marshal N. I. Krylov, "The Strategic Rocket Troops," Voyenno-istorichesky Zhurnal (Military-Historical Journal), no. 7, July 1967.

114. Tass International Service in English, 1305 GMT, 2 September 1967.

115. Robert S. McNamara, Fiscal Year 1969-73 Defense Program and Fiscal Year 1969 Defense Budget, Department of Defense monograph, 1 February 1968, p. 54.

An informed Soviet analysis of United States strategic force levels and the development of United States strategy appeared in August. No mention was made of antimissile defense system efforts. The Poseidon and Minuteman II and III programs were pictured as a "fresh increase in the 'assured destruction' forces." Poseidon was simply treated as a replacement for Polaris. No mention of multiple warheads or the enhanced capability of these systems to penetrate anti-missile defenses was made. These development programs were portrayed as having an aggressive nature: "Such a buildup of mass destruction weapons is certainly not dictated by the requirements of defense."¹¹⁶

Congressional pressure for United States antimissile defense deployment increased in the late summer of 1967. On 5 August, the Senate Appropriations Subcommittee, in reporting out a defense appropriations bill, urged the President to initiate deployment "immediately," citing the Chinese weapons developments and the apparent lack of progress with the Soviet Union concerning strategic arms limitation discussions.¹¹⁷ The entire Senate approved the military appropriations bill on 22 August. This bill included \$730.0 million for the development of Nike-X. In early September, conservative Senator John G. Tower spoke to the convention of

116. B. Teplinsky, "U. S. Military Programme," Mezhdunarodnaia Zhizn' (International Affairs), August 1967, p. 48.

117. The New York Times, 6 August 1967, p. 1.

the equally conservative Young Americans for Freedom in Pittsburgh. He charged that the Johnson Administration was dangerously delaying the antimissile defense deployment decision and that Defense Secretary McNamara was chiefly responsible for the delay. He warned that, based upon some of his past decisions, Secretary McNamara's judgment was questionable. He specifically attacked the excessive absolute cost argument: "It is at least as important as Vietnam, and if we can spend twenty-five billion dollars a year there we can find four billion dollars for a light Nike-X defense that can be beefed up later or as necessary."¹¹⁸ Senator John O. Pastore, speaking at a nuclear-powered submarine launching on 9 September, seconded Senator Tower's assertion that a nation that could afford Vietnam could afford to protect itself. He left no doubt that he was referring to a thick, anti-Soviet system and also advocated expansion of the size of the Polaris submarine fleet.¹¹⁹

On 14 September, unannounced Republican Presidential candidate Richard M. Nixon spoke of increasing Soviet forces. In the absence of a "satisfactory agreement," he urged the Johnson Administration to "go ahead at all costs to build an antimissile missile system."¹²⁰ He noted that many

112. The Washington Post, 4 September 1967, p. A15.

119. The New York Times, news article by Evert Clark, 10 September 1967, p. 1.

120. The New York Times, 15 September 1967, p. 9.

analysts had argued that an antimissile defense arms race with the Soviet Union would only result in a more expensive stalemate, but pointed out that a thin system would be effective against a less-developed nuclear power, such as China.

The growing pessimism of the Johnson Administration over the prospects of substantive discussions with the Soviet Union was evident in a statement made by Secretary of State Rusk at an 8 September press conference:

Time is becoming urgent. We'd like to have discussions about both offensive and defensive missiles just as soon as possible. We would hope very much that the Soviet Union would set a date for these discussions and that both sides would be prepared to put in specific proposals that would bring this matter under control. I would like to say to you today that no such date has been established. We'll continue to try and we'll see what happens, but this is a matter of some urgency.¹²¹

The signalling to the Soviet Union was obvious.

With domestic pressure for an antimissile defense deployment decision building in the United States in the absence of indications of readiness to negotiate from the Soviet Union, a deployment decision seemed imminent. Marshal Krylov's July statement of Soviet penetration capability indicated that the Soviet Union felt that such a decision was forthcoming and of no great concern.

121. The Washington Post, 9 September 1967.

Chapter 4

The Sentinel Period:

September 1967 to March 1969

Speculation regarding a United States antimissile defense deployment decision ended on 18 September when Secretary McNamara announced that production of a thin, Chinese-oriented antimissile defense system would begin by the end of 1967. In an address delivered to United Press International editors in San Francisco. The deployment announcement was made at the end of his address. The bulk of the speech was devoted to an eloquent discussion of his assessment of the realities of then-current nuclear strategy. After defining key terms and outlining the futility of a Soviet or American nuclear strategy based on the ability to achieve a first strike capability against the other, he discussed the results of uncertainty about a potential opponent's weapons acquisition policies, citing the massive United States intercontinental ballistic missile buildup of the early 1960's as an example:

But the blunt fact remains that if we had had more accurate information about planned Soviet strategic forces, we simply would not have needed to build as large a nuclear arsenal as we have today What is essential to understand here is that the United States and the Soviet Union mutually affect each other's strategic plans. Whatever be their intentions, whatever our intentions, actions - or even realistically potential actions - on either side relating to the buildup of nuclear forces, be they either

offensive or defensive weapons, necessarily trigger reactions on the other side. It is precisely this action-reaction phenomenon that fuels an arms race.¹

After discussing the irony of nuclear weaponry, that even substantial numerical superiority does not effectively translate into political control or diplomatic leverage as he saw it, he described the Soviet buildup and possible United States responses. Secretary McNamara intimated that he favored the establishment of some sort of strategic parity:

We do not want a nuclear arms race with the Soviet Union - primarily because the action-reaction phenomenon makes it foolish and futile. But if the only way to prevent the Soviet Union from obtaining first strike capability over us is to engage in such a race, the United States possesses in ample abundance the resources, the technology, and the will to run faster in that race for whatever distance is required. But what we would much prefer to do is to come to a realistic and reasonably riskless agreement with the Soviet Union, which would effectively prevent such an arms race.²

Having laid out his interpretation of then-current strategic reality, he moved to the specific case of antimissile defense. He acknowledged that the Soviet Union was deploying an antimissile defense system and stated that with a proper United States response it was not a cause for alarm:

-
1. "Remarks by Secretary of Defense Robert S. McNamara, September 18, 1967," Bulletin of the Atomic Scientists, December 1967, p. 28.
 2. Ibid., p. 29.

The Soviets are now deploying an antiballistic missile system. If we react to this deployment intelligently, we have no reason for alarm.

The system does not impose any threat to our ability to penetrate and inflict massive and unacceptable damage on the Soviet Union. In other words, it does not presently affect in any significant manner our assured destruction capability.

It does not pose such a threat because we have already taken the steps necessary to assure that our land-based Minuteman missiles, our nuclear submarine-launched new Poseidon missiles, and our strategic bomber forces have the requisite penetration aids -- and in the sum, constitute a force of such magnitude, that they guarantee us a force strong enough to survive a Soviet attack and penetrate the Soviet ABM deployment.³

The penetrability of the proposed United States defensive system was seen as the key reason why deployment would be futile with respect to the Soviet Union. Secretary McNamara made it clear that absolute cost was not the problem. He then appealed to the Soviet Union to clarify its intentions regarding antimissile defenses:

The plain fact of the matter is that we are now facing a situation analogous to the one we faced in 1961; we are uncertain of the Soviets' intentions.

At that time we were concerned about their potential offensive capabilities; now we are concerned about their potential defensive capabilities. But the dynamics of the concern are the same. We must continue to be cautious and conservative in our estimates

3. "McNamara's Remarks," Bulletin of the Atomic Scientists, December 1967, p. 29.

leaving no room in our calculations for unnecessary talk. And at the same time, we must measure our own responses in such a manner that it does not trigger a senseless spiral upward of nuclear arms.

Now, as I have emphasized, we have already taken the necessary steps to guarantee that our offensive strategic weapons will be able to penetrate future, more advanced, Soviet defenses. Keeping in mind the careful clockwork of lead-time, we will be forced to continue that effort over the next few years if the evidence is that the Soviets intend to turn what is now a modest and light ABM deployment into a massive one. Should they elect to do so, we have both the lead-time and the technology available to so increase both the quality and quantity of our offensive strategic forces - with particular attention to highly reliable penetration aids - that their expensive defensive efforts will give them no edge in the nuclear balance whatsoever. But we would prefer not to have to do that. For it is a profitless waste of resources, provided we and the Soviets can come to a realistic strategic arms limitation agreement. As you know, we have proposed U. S.-Soviet talks on this matter. Should these talks fail, we are fully prepared to take the appropriate measures that such a failure would make necessary.

The point for us to keep in mind is that should the talks fail - and the Soviets decide to expand their present modest ABM deployment into a massive one - our response must be realistic. There is no point whatsoever in our responding by going to a massive ABM deployment to protect our population, when such a system would be ineffective against a sophisticated Soviet offense. Instead, realism dictates that if the Soviets elect to deploy a heavy ABM system, we must further expand our sophisticated offensive forces, and thus preserve our overwhelming assured destruction capability.⁴

4. "McNamara's Remarks," Bulletin of the Atomic Scientists, December 1967, p. 30.

Having made as strong a case as possible against defense of urban areas against a massive sophisticated attack, he described three feasible objectives for a defense system; protection of strategic offensive forces and bases, area defense against a minor nuclear power such as China, and population protection in the improbable but possible case of an accidental launch by any nuclear power. Secretary McNamara then announced that the United States was going to begin an anti-China defense system and cautioned that this thin defense deployment contained two possible psychological dangers. First, that it would encourage future lapses into what he regarded as the former oversimplification about the adequacy of nuclear power and second, that it could fuel the "mad momentum" of another nuclear arms race. He concluded by attempting to assure the Soviet Union that this decision did not prejudge agreement on limitation of strategic weapons:

Let me emphasize - and I cannot do so too strongly - that our decision to go ahead with limited ABM deployment in no way indicates that we feel an agreement with the Soviet Union on the limitation of strategic nuclear offensive and defensive forces is any the less urgent or desirable.⁵

In an attempt to reach the widest audience with his arguments relating to antimissile defense, Secretary McNamara

5. "McNamara's Remarks," Bulletin of the Atomic Scientists, December 1967, p. 31.

granted a rare exclusive interview to Life magazine which appeared on 23 September. In a slightly less sophisticated fashion, he repeated the major points of the San Francisco speech. This interview contained two significant statements not previously released to the public. First, he described United States efforts to persuade the Soviet Union to enter discussions on limitation of antimissile defenses, including direct attempts by himself and President Johnson at the Glassboro Summit.⁶ He did not comment on the possible effects of the United States deployment decision on Soviet willingness to negotiate. More importantly, he made the first clear public reference to the previously classified multiple independently-targeted reentry vehicle (MIRV) as a counter to antimissile defenses:

...we're capitalizing on a major new technological advance. We can now equip our boosters with many warheads, each of which can be aimed at a separate target. We call this MIRV We're buying MIRVs for both Minuteman and Poseidon. We believe that we have a substantial lead over the Soviets in this important technology. Through the use of MIRVs, we will redesign our strategic force to increase the total number of warheads. This will do two things: exhaust their defenses and at the same time better match the size of weapons to the targets to be destroyed. The net result will be an increase in military effectiveness with some reduction in the total megatons in our force [MIRV] is one of the things that makes us so confident that we can overcome

6. "Defense Fantasy Now Comes True," interview with Secretary of Defense Robert S. McNamara, Life, 29 September 1967, p. 28C.

the Soviet A.B.M. But in a few years the Soviets could have their own MIRVs and that is one of the reasons we are pessimistic about deploying an effective more expensive A.B.M. against them. Both our missile defense system and theirs were designed before MIRVs came along as a serious possibility. The optimistic statements made by A.B.M. proponents on both sides haven't taken such things as MIRVs fully into account.⁷

Viewed in conjunction with his speech in San Francisco, several signals to the Soviet Union clearly emerged. Most important was that the United States sought to maintain the mutual assured destruction strategy based upon secure second strike forces that had evolved during the previous decade. While antimissile defenses could threaten that situation, the United States was moving to assure its continuation. Every effort was being made to communicate to antimissile defense supporters on both sides that population and city defense would not provide additional security in a superpower confrontation. The MIRV announcement also supported United States adherence to a second strike strategy. By intimating that warhead size was being reduced to bring it into balance with the targets to be destroyed, Secretary McNamara was attempting to signal that the capability of these warheads to destroy hard targets was being reduced,⁸ thereby reducing

7. "Defense Fantasy," interview with Secretary McNamara, Life, 29 September 1967, p. 28B.

8. This decrease in warhead yield could be balanced by improved guidance accuracy which was not mentioned. In terms of signalling, yield reductions connote a second strike mission for a given strategic weapons system.

the first strike capability of these weapons.

United States reaction to Secretary McNamara's speech was generally favorable, but deplored the fact that international pressures had forced the decision. Some influential columnists discussed the domestic political overtones,⁹ a theme that was later seized upon by Soviet and other foreign commentators. Others pointed out that technological progress in offensive systems had already by-passed antimissile defense.¹⁰ Multiple warheads and saturation tactics were seen as assuring the continued supremacy of offensive forces, as Secretary McNamara had argued.

In the wake of Secretary McNamara's announcement, other governmental agencies with arms control responsibilities attempted to reinforce his assertion that the deployment decision did not adversely affect the possibilities for an agreement with the Soviet Union. On 19 September, Adrian S. Fisher, Deputy Director of the Arms Control and Disarmament Agency (ACDA), spoke to the Eighteen Nation Disarmament Conference in Geneva and repeated Secretary McNamara's argument that urban defense for either the Soviet Union or the United States was impracticable:

...limited nature of the proposed United States anti-ballistic missile deployment,

-
9. The New York Times, news article by James Reston, "The Anti-Republican Missile," 22 September 1967, p. 46.
 10. The New York Times, news article by Robert Kleiman, 9 October 1967, p. 1.

even in its completion, and our intention to keep it limited. The deployment will consist of an 'area' defense of the United States and a 'terminal' defense of some of our Minuteman sites. The United States deployment will comprise no terminal defense of urban areas and will not attempt to provide defense for those areas against a large scale strategic missile attack of the kind the Soviet Union is capable of launching. We do not believe that it is feasible for either the Soviet Union or the United States to provide real protection for our populated areas against the strategic power of the other.¹¹

A State Department release on the same day stated that, "We believe it is still very highly desirable for the United States and the Soviet Union to discuss means of limiting competition on strategic weapons."¹² It expressed the Johnson Administration's hope that the "new focus on the anti-ballistic missile problem" would stimulate Soviet interest in negotiations. Such logic could have been countered by the probability that precipitous Soviet reaction could have been interpreted as giving in to United States pressure and therefore was unlikely. Another possibility was created when Assistant Secretary of Defense for International Security Affairs Robert Warnke alluded to arms limitation by parallel weapons acquisition and deployment actions in a 15 October speech.¹³

11. The New York Times, 20 September 1967, p. 18.

12. Ibid.

13. The New York Times, news article by William Beecher, 16 October 1967, p. 1.

Soviet reaction to Secretary McNamara's San Francisco speech was sparse. A 24 September article established an analysis of the forces which had produced the decision to deploy antimissile defenses which still persists. The deployment was viewed as a concession to the interests of the arms industry. Concern was expressed that domestic pressure for system expansion would prove irresistible. In general, the arguments reflected the United States domestic debate and made no mention of the anti-China rationale. Although the article quoted liberally from an editorial condemning the decision which had appeared in The New York Times on 20 September, it omitted the Times' arguments about United States-Soviet strategic force interactions and arms race pressures.¹⁴ A later article, which appeared in Izvestia on 4 October, responded to the Life interview with Secretary McNamara. Despite the Secretary's statements to the contrary, the cost of the system was seen to be crucial.¹⁵ Concern was expressed that the deployment decision would open a new round in the arms race. Again, no mention was made of other reasons for the decision or the M1RV announcement.

The East European press was far more candid. A Czech article, which appeared on 29 September, reported Secretary McNamara's argument that the proposed United States system

14. Pravda, 24 September 1967, p. 1.

15. Yuri Barsukov and S. Zykov, "Who Has an Interest in This?," Izvestia, 4 October 1967, p. 2.

was not impenetrable, but omitted the specific conditions which supported this assertion. Deployment was seen as a result of pressure from the Joint Chiefs of Staff, not the arms industry or the Republican Party. The anti-China rationale was accurately reported, but probable anti-Soviet motives were also seen:

Regardless of the proclaimed anti-Chinese orientation of the Nike-X antiballistic missile system, the American press itself has carried speculation as to the true intent of the American Administration. Concern is expressed that the building of the antiballistic missile defense might evoke another upswing in the armament race. In this connection, The New York Times has pointed out that the Soviet Union knows quite well that present American intent may change, and that domestic political pressure manifests itself in the United States before elections. 'What seems clear to Americans,' it writes 'namely, that the antiballistic missile defense system is being built primarily against China, may not be clear to the Russians.' These utterances possibly stem from views propounded in Washington that the Soviet Union will hardly believe stories about efforts to 'neutralize' the so far just emerging Chinese nuclear and ballistic missile power and no more.

Substantial attention has been given to the fact that the United States informed the Soviet Union of its decision in advance, which so far has not been the custom. This is one aspect of the matter which might be explained by the fact that the American Administration wanted to forestall an unfavorable reaction on the part of the Soviet Union. The statement by the spokesman of the State Department McCloskey, however, introduces a new element into the entire affair. McCloskey indicates that by a decision to build a limited antiballistic missile system the United States would like

to induce the Soviet Union to begin a discussion on the suspension of the race in the field of strategic weapons. It is probable that this is connected with the Soviet head start in the construction of an antiballistic missile system, about which the United States is rather concerned. They proceed from the assumption that in this situation it might be disadvantageous for them to freeze the existing state of affairs. According to American estimates, the United States will continue to be superior in offensive ballistic missiles and the Soviet Union in defensive ones.

Apart from these considerations, the American Administration defends its decision with the argument that a 'light nuclear umbrella' does not basically affect the balance of missile power between the United States and the Soviet Union. It appears that the only one who needs persuading in this respect is the Soviet Union.¹⁶

While it cannot be documented, it seems likely that this interpretation was shared by many in the Soviet leadership. Although the article avoided policy advocacy, it reflected uneasiness over the implications of the United States decision. Although the deployment decision was somewhat predictable in view of United States domestic politics, it represented a deviation from the stand-pat trend which had characterized United States force posture developments in the mid-1960's. Taken in conjunction with Secretary McNamara's announcement of the development of multiple warhead offensive systems, it may have appeared to some elements of

16. Pavel Cipka, "Light Nuclear 'Umbrella:' The Intentions of the United States in Building an Antiballistic Missile System," Bratislava Pravda, 29 September 1967, p. 5.

the Soviet bureaucracy that this trend was about to be broken. Those who based their arguments for various military and foreign policy decisions on the perception that Secretary McNamara's professed concern for the action-reaction phenomenon would inhibit increases in United States strategic forces were probably most concerned. To those who had presumably argued that Soviet force posture planning should anticipate some increases in United States strategic forces, the Sentinel antimissile defense system and multiple warhead announcements would seem to have vindicated their judgment that the United States had not abandoned a quest for some degree of strategic superiority. No overt indications of an internal debate on how the Soviet Union should proceed in light of these decisions and developments appeared in the Soviet press. Given the apparent intensity of the debate which had occurred earlier in the year, the Soviet leadership may have concluded that it was most prudent to continue to implement the weapons system decisions which had been made previously. It is also possible that the earlier deliberations had anticipated the actions taken by the United States and had planned accordingly.

The differences between the responses of the Soviet and East European presses were noteworthy.¹⁷ In general, the

17. For a fuller analysis of these differences, including bibliographic references, see Fritz Ermarth, "Soviet and East European Views on the ABM Race," Radio Free Europe Research Report, 26 November 1967.

Soviet response stressed arms race considerations. No reference was made to the stability of the international system or that the United States antimissile defense system deployment had a professed anti-Chinese mission. This silence may have been intended to avoid lending credence to Chinese propaganda concerning Soviet-American collusion. Further, no intimation was made that the United States decision could have been made in response to Soviet antimissile defense or offensive missile deployments, probably reflecting a desire not to strengthen the case of those in the United States who favored broad deployment of Sentinel. There was little to suggest that the East European press response was coordinated with that of the Soviet Union. The anti-Chinese rationale was reported, but the Sentinel deployment was seen as basically anti-Soviet in its true intent. Given the existing Soviet defenses, the United States decision was pictured as a response to the Soviet deployment. The moratorium proposal was viewed as an attempt to negate the Soviet advantage. A general conception that rough strategic parity between the superpowers enhanced international stability and thereby the security of smaller nations appeared to be the basis for this analysis. From this perspective, the Soviet antimissile defenses were assumed to partially offset the United States' offensive superiority, thus contributing to the attainment of the desired parity. However, an antimissile defense-based arms race was viewed with concern. Apparently having become accustomed to the relatively predictable relationships which

had evolved in the period following the Cuban Missile Crisis, they were concerned over the potential instabilities which could result from wide deployments of antimissile defenses by the United States and the Soviet Union. At one extreme was the possibility that possession of effective antimissile defenses by the superpowers would remove the perceived inhibitions on the use of force in the international system. The unspoken source of this concern involved the potential actions of the Soviet Union. Less than one year later, this erroneously-based faith in the existing relationships was exposed when the Soviet Union led Warsaw Pact forces into Czechoslovakia.

A more polemical attack on the United States decision appeared in the Soviet press on 11 October. It characterized those who believed that the deployment would remain limited as "simpletons." The decision was seen to have been made for "internal political reasons, not military-strategic considerations" to avoid charges of allowing an "antimissile gap." Finally, it was asserted that Soviet retaliatory power was sufficient to discourage United States strategic planners from concluding that a first strike strategy could be advocated.

The aggressors would like to take cover from retribution behind the shield of ABM. Even two years ago, Fortune, magazine of U. S. business circles, warned: 'Appearance of the Nike-X system can be interpreted in the Soviet Union as a preparation for attack on the USSR.' We are not saying that the illusion

of impunity engendered by the ABM system could turn imperialist policies to a policy of blackmail which is so close to their hearts.¹⁸

Although the article attempted to downgrade this issue, the fact remains that, in simply addressing the question, the author reflected some Soviet concern that such a strategy might be adopted. A more highly speculative explanation may be that at that time some Soviet military leaders had been arguing for a Soviet first strike strategy based on similar considerations and that the author was attempting to discredit this movement.

The eagerly anticipated military parade commemorating the 50th Anniversary of the Bolshevik Revolution took place on 7 November. Although a large intercontinental ballistic missile, subsequently referred to as SS-9 in the West, was shown for the first time, the Soviets failed to produce a spectacular display as had been predicted by some Western intelligence analysts. For the first time in several years, an antimissile missile was not included. The Air Defense Forces (PVO) were represented by the common SA-2 anti-aircraft guided missile.¹⁹ Articles which commented on the parade produced a minor split on Soviet antimissile defense capabilities. Izvestia and Krasnaya Zvezda stated that Soviet

18. G. Gerasimov, "About the ABM," Literaturnaya Gazeta (Literary Gazette), 11 October 1967, p. 9.

19. The New York Times, 8 November 1967, p. 1.

"antirockets permit the creation of a reliable defense of separate targets and broad regions of the country."²⁰ This statement implied both point and area defense capabilities, not actual deployments. Only area defense was implied by Pravda: "Our antiaircraft troops are capable of destroying enemy mass air and space attack at any altitude and at great distances from the defended objectives."²¹ Other Anniversary articles by military leaders omitted even veiled references to antimissile defense.

In summary, the Soviet response to President Johnson's moratorium proposal and the subsequent announcement of United States antimissile defense deployment was more notable for what was omitted than for what was said. No mention was made of Soviet deployments. Defense capability was the theme of rare comments on antimissile defense. Articles which surveyed overall Soviet defense preparedness generally avoided any mention of antimissile defense. When antimissile defense was discussed, it was generally in the context of commentary on Western reports. For example, a fairly sophisticated analysis of Western penetration aids technology failed to contain any reference to Soviet defensive capability.²² While the anti-China rationale for United States deployment was not

20. Izvestia and Krasnaya Zvezda (Red Star), 8 November 1967.

21. "A Reliable Shield," Pravda, 8 November 1967, p. 2.

22. Engineer-Captain First Rank P. L. Sergeyev, "Problems of Penetrating an Antimissile Defense," Morskoy Sbornik (Naval Digest), 9 September 1967, pp. 91-96.

discussed by the Soviets, their commentary generally warned of a new round in the arms race which intimated that they considered that the United States decision affected the Soviet-United States strategic balance. No indications were given that the United States decision had been made even partially in response to Soviet strategic force or defensive deployments. Election year domestic political pressures on President Johnson and the growing influence of the "military-industrial complex," a concept which fits neatly into Marxist ideological interpretations of history, were depicted as the driving forces behind the United States deployment decision. While Soviet stress on the costs inherent in the United States decision would support a Marxist analysis, it could also have reflected the Soviet internal debate.

In a news conference on 2 November, Secretary McNamara revealed that the Soviet Union had been testing a fractional orbital bombardment system (FOBS).²³ While not specifically designed to penetrate antimissile defense systems, this system has the advantage of shortening the warning time of impending attack. The FOBS employed a low altitude flight path (about 100 miles in altitude, vice the normal 800 miles for a minimum-energy ballistic trajectory) at orbital speeds and is deorbited by decelerating rockets about three minutes prior to impact. The higher speed and lower altitude reduce the time the reentry vehicle can be tracked by radar. When

23. The New York Times, 3 November 1967, p. 1.

fired over normal intercontinental ballistic missile flight paths, the flight time is about ten minutes shorter than a ballistic trajectory over the same flight path. The system can also be fired over fractional orbital flight paths to approach targets through gaps in radar coverage, such as then existed in the southern approaches to the United States. Disadvantages include reduced payload and accuracy. Secretary McNamara predicted that FOBS had an anti-bomber base mission where these parameters were less critical. He concluded that it did not threaten the United States' assured destruction capability. The timing of this release suggests that Secretary McNamara was attempting to minimize any overly pessimistic reaction to the possible display of such a weapon at the 7 November military parade in Moscow. The rocket was shown, but its capabilities were not discussed beyond generalities.

Movement by the United States toward a more anti-Soviet mission for the Sentinel system was intimated in mid-November. In testimony to the Joint Atomic Energy Committee on 10 November, Deputy Defense Secretary Paul Nitze stated, "The deployment of the Sentinel permits us at any time within a year to make a decision on whether or not we want to defend the Minuteman silos."²⁴ A similarly worded Department of Defense release on 13 November²⁵ supported his testimony. The

24. The New York Times, 11 November 1967, p. 1.

25. The Washington Post, 14 November 1967, p. A1.

fact that a decision had not been reached was stressed. Although the defense of some Minuteman sites was not necessarily seen as blatantly anti-Soviet, it represented an escalation in United States deployment intentions. The addition of the time factor was also a signal to the Soviets.

On 19 November, the Soviets celebrated Strategic Rocket Forces Day. Although the emphasis was on offensive weapons and their capabilities, antimissile defenses were referred to by Marshal Krylov: "Among their arms, our country's anti-air defenses have accurate interceptor-missiles of enemy nuclear carriers and missiles."²⁶ Marshal Krylov's remarks regarding offensive missiles were more significant in that they contained the first specific claim that Soviet missiles carried penetration aids. In the earlier part of his article, he repeated the July formulation that Soviet missiles were "invulnerable to the enemy's antimissile defenses." After describing improvements such as smaller and more powerful warheads, longer range, greater accuracy, and solid-fueled intercontinental missiles mounted on tracked vehicles, he stated, "The warheads of these rockets carry devices to break through the enemy's antirocket defenses." In another 19 November article, Colonel General N. V. Yegorov, Chief of the Political Administration of the Strategic Rocket Forces, emphasized the accuracy of Soviet missiles:

26. Marshal N. I. Krylov, "The Rocket Might of the Motherland," Pravda, 19 November 1967, p. 2.

Our intercontinental missiles have a practically unlimited range of action and, what is especially important, great accuracy in carrying warheads to their targets. This high accuracy has been convincingly demonstrated in numerous experimental launches.²⁷

This unusual stress on accuracy carried first strike implications. Accuracy had normally been referred to in general statements on the capabilities of Soviet offensive missiles, but not emphasized to this extent. General Yegorov's reference to "numerous launches" connoted an established operational capability. Finally, a film shown on Soviet television in honor of Strategic Rocket Forces Day included the Galosh antimissile missile in action, but it was not new footage.²⁸

A more detailed description of United States offensive missile developments was provided by Director of Defense Research and Engineering John S. Foster in a 13 December speech in Dallas. He described a wider dispersal for multiple independently-targeted reentry vehicle (MIRV) warheads than had previously been disclosed, pointing out that one missile with MIRV warheads could attack several cities. Dr. Foster pictured the MIRV program as a response to Soviet antimissile defenses and increased offensive forces. In concluding his remarks, he stated that the purpose of the MIRV

27. Colonel General N. V. Yegorov, "Formidable and Invincible," Krasnaya Zvezda (Red Star), 19 November 1967, p. 1.

28. Aviation Week and Space Technology, 27 November 1967, p. 71.

program was to provide continued United States assured destruction capability: "They will assure penetration of Soviet antimissile defenses and can deliver unacceptable damage to the Soviet Union even after we have suffered an all-out nuclear attack."²⁹ To bolster the credibility of the second strike mission for these developments, on 12 January 1968 the Defense Department announced the cancellation of the Mark 17 warhead program. This program involved a single, large-yield warhead for the Poseidon and Minuteman III missiles which would have had a significant capability against hard targets given the estimated accuracy of these weapons. The statement indicated that the funds released would be re-allocated to MIRV development.³⁰

On 1 February, the annual Defense Posture Statement was published. Secretary McNamara generally repeated the basic themes of his San Francisco speech. The overall impression given was one of orderly progress in strategic forces, with no cause for alarm. He remained confident of the assured destruction capability of existing and programmed United States strategic forces. With regard to antimissile defenses, he strongly reasserted that defenses would not be effective against a heavy, sophisticated attack and that the best response to expanded Soviet antimissile defenses would be to increase United States offensive forces. In support of this

29. The New York Times, 14 December 1967, p. 1.

30. The Washington Post, 13 January 1967, p. A11.

contention, Secretary McNamara listed United States actions which had been taken in response to the Soviet antimissile defense deployment:

1. The production and deployment of the Poseidon missile with MIRVs.
2. The production and deployment of improved missile penetration aids.
3. The increase in the proportion of Minuteman IIIs (with MIRVs and a new third stage) in the planned force.
4. The initiation of development of new small reentry vehicles in order to increase substantially the number of warheads (or penetration aids) which can be carried by a single missile.³¹

Future options available also placed their primary emphasis on offensive weapons systems:

We can convert the entire force to Minuteman III, increase the number of warheads each Minuteman missile could carry, emplace the entire Minuteman III force in superhard silos, and/or protect the Minuteman force with an ABM system.

There are, of course, still other options available, such as the construction and deployment of more Poseidon submarines, and the development and production of a new land-based missile. Although a new land-based ICBM does not appear to offer any particular advantage over the Minuteman III in superhard silos, I believe we should keep that option open by starting development now of a silo which could be used for either the Minuteman III or a new ICBM. The

31. Robert S. McNamara, Fiscal Year 1969-73 Defense Program and Fiscal Year 1969 Defense Budget, Department of Defense Monograph, 1 February 1968, p. 53.

its cities was reiterated:

Nothing has occurred during the last year to change my conviction that the deployment of the Nike-X system for the defense of our cities against a Soviet attack would, under present circumstances, be a futile waste of our resources. I believe it is clear from my earlier discussion of the trends in the nature of the threat, as evaluated by our intelligence community, that the Soviets are determined to maintain a nuclear deterrent against the United States. If this is true, as I believe it is, any attempt on our part to reduce their 'Assured Destruction' capability below what they might consider necessary to deter us would simply cause them to respond with an offsetting increase in their offensive forces. It is precisely this process of action and reaction upon which the arms race feeds, at great cost to both sides and benefit to neither.³⁵

While the prospects for city defenses against heavy sophisticated attacks were held to be not promising, an examination of the budgetary proposals for Fiscal Year 1969 revealed that, of the \$1.232 billion for antimissile defense, \$268.0 million were set out for research and development programs not related to the Sentinel system.³⁶

Secretary McNamara's overtures to the Soviet Union for negotiations on strategic arms limitation were repeated by President Johnson in a message to Congress which accompanied the Annual Report of the Arms Control and Disarmament Agency (ACDA): "The United States urgently desires to begin discus-

35. McNamara, 1969-73 Defense Program, p. 62.

36. Ibid., p. 75.

sions with the Soviet Union about the buildup of offensive and defensive missiles of both sides."³⁷

During the first two months of 1968, the relative silence of the Soviet Union on air defense capabilities was broken in articles which appeared during the celebration of the 50th Anniversary of the Soviet Armed Forces. Although the divergence of statements did not reach the scale evident in mid-February 1967, the absence of guidance or a formulation was apparent. General Batitsky, Commander of the Air Defense Forces, was the most vague. On 28 December 1967, in an article which surveyed the entire Soviet defense establishment, he quickly passed over his area of responsibility: "Today, the Air Defense Forces constitute a mighty branch of the Armed Forces. They are provided with the latest combat equipment."³⁸ A subsequent article was slightly more specific, although the text seemed to reflect antiaircraft capabilities:

The armament of the Air Defense Forces contains complexes of antiaircraft guided missiles capable of destroying practically all modern means of air and space attacks at significant distances from defended targets, at high and low altitudes, and at supersonic flight speeds. In the process the results of their actions are not dependent on time, or weather interference.³⁹

37. The New York Times, 13 February 1968, p. 1.

38. General P. F. Batitsky, "Toward the 50th Anniversary of the USSR Armed Forces," Krasnaya Zvezda (Red Star), 28 December 1967, p. 4.

39. General P. F. Batitsky, article in Sovetskiy Voin (Soviet Soldier), January 1968, p. 3.

This apparent antiaircraft defense emphasis was repeated in a Pravda article which appeared on 5 February. Antimissile defenses were not mentioned. General Batitsky included a strong plea for the importance of strategic defenses:

Military circles in the imperialist countries place the main emphasis on air-space surprise attack in their plans to unleash a nuclear rocket war In these circumstances the CPSU, the Soviet Government, and all the people, are taking the necessary steps to further strengthen the country's defense capability. We devote special attention to perfecting our antiwar defenses of strategic importance in the present situation.⁴⁰

This theme was repeated in an Izvestia article on 21 February, although in this case General Batitsky failed to invoke the image of a United States first strike:

Antiaircraft defense forces are among the most important of our armed forces. They are destined to defend administrative and political centers, industrial and economic regions, and the population against enemy air-cosmic forces. We know very well, that the United States and other members of the aggressive imperialist bloc maintain powerful armed forces in constant combat readiness In recent years, the United States has continued to actively develop their strategic forces, to increase individual allotments of ballistic rockets, and to develop new systems for air-cosmic attack. Under those circumstances, the Communist Party, the Soviet Government, and the entire Soviet nation, in taking the measures necessary for a further strengthening of the defensive power of the motherland, pay special attention to the perfection of air defense

40. General P. F. Batitsky, interview in Pravda, 5 February 1968, p. 5.

which has acquired such tremendous significance in modern conditions.⁴¹

It is interesting to note that General Batitsky did not mention the Sentinel antimissile defense system among the growing United States strategic forces. Viewed from a bureaucratic perspective, it is possible that General Batitsky was resorting to the typically American technique of slightly downgrading the capability of his forces while exaggerating the gravity of the threat.

Marshal Krylov of the Strategic Rocket Forces was the second most prolific commentator on antimissile defenses during this period. On 17 February, he repeated his general assertion that Soviet missiles were "capable of overcoming the antimissile defenses of an enemy."⁴² In a survey article on Soviet defense capabilities which appeared on 23 February, he repeated the familiar Marshal Malinovsky formulation: "The Air Defense Forces are capable of destroying any aircraft and many missiles of the enemy."⁴³ Significantly, Marshal Krylov's most interesting statement did not appear in the Soviet press. In an interview with a Polish newspaper, he seemed to advocate continued research and development

41. General P. F. Batitsky, "Guardians of the Air Ocean," Izvestia, 21 February 1968, p. 1.

42. Marshal N. I. Krylov, interview in Pravda, 17 February 1968.

43. Marshal N. I. Krylov, "Powerful Shield of the Motherland," Selskaya Zhizn' (Rural Life), 23 February 1968, p. 2.

programs on antimissile defense:

We are closely watching the development of rocket technology in the armies of other major countries and we know their present state. We also know the solutions to the problems of antirocket defense. The concept is that the existing systems of antirocket defense are not in a position to insure the effective defense against the power of Soviet rockets. These rockets possess unusually excellent guidance systems. That is why it is almost impossible to disturb their flight. However, this does not dull our vigilance. Soviet military specialists are closely watching the latest scientific developments in rocket technology and antirocket defense and are increasingly perfecting our own military technology and the entire system of the country's defense. Soviet rockets are in sure hands. They are handled by people who do not threaten world peace but who are always ready to defend it.⁴⁴

In two articles which were published during this period, Marshal M. Zakharov of the General Staff repeated Marshal Malinovsky's familiar "any aircraft and many missiles" formulation⁴⁵ and repeated the assertion that Soviet offensive missiles could penetrate a United States antimissile defense system.⁴⁶ Marshal Grechko avoided Marshal Malinovsky's formulation, choosing a more vague statement:

The Air Defense Forces have changed beyond

44. Marshal N. I. Krylov, interview in Trybuna Ludu, Warsaw, 6 February 1968, p. 1.

45. Marshal M. Zakharov, "The Party and the Armed Forces of the Country of the Soviets," Partiinaya Zhizn' (Party Life), February 1968, p. 18.

46. Pravda, 17 February 1968, p. 1.

recognition. They comprise antiaircraft rocket troops, air defense aviation, and radiotechnical troops capable of waging a successful struggle against manned and unmanned means of air attack under any conditions and at a considerable distance from defended objectives.⁴⁷

Marshal Grechko's statement resembled an earlier evaluation of Soviet air defense capability which seemed to assert impenetrability for the manned bomber and its cruise missiles:

Soviet antiaircraft rockets can hit enemy manned and unmanned aircraft at a great distance from the defended objects, in any meteorological conditions, and despite radio interference. Antiaircraft defense aviation can operate at altitudes which make it possible to destroy any aircraft and winged rockets.⁴⁸

A similar capability was claimed by another article which stressed "antiaircraft missiles and fighter planes" as the major equipment of the Air Defense Forces:

The military endeavour of the Soviet state is also aimed at building up the country's defense against possible nuclear attacks by aggressors. It is for this purpose that the Air Defense Forces have been developed. They are equipped with modern antiaircraft missiles and fighter planes. The high standard of technical equipment of the air defense units ensures their ability to cope with the task of protecting

47. Marshal A. A. Grechko, "Born Under Fire," Sovetskiy Voyn (Soviet Soldier), February 1968, p. 4.

48. "The Mighty Guard of the Gains of Socialism," unsigned article in Krasnaya Zvezda (Red Star), 23 January 1968, p. 3.

the country from nuclear attacks.⁴⁹

The viewpoint of those who advocated continuing efforts to re-establish United States strategic superiority was expressed by Senator Strom Thurmond on 26 February. He called for less candor in describing United States strategic capabilities to deprive potential adversaries of intelligence information, a program of increased strategic offensive forces to approach or attain a credible first strike capability, and expansion of antimissile defenses to reduce damage and casualties in a possible nuclear exchange with the Soviet Union.⁵⁰ He also delivered a general attack on the civilian "amateurs" in the Defense Department and advocated greater influence for the military and Congressional "professionals." He made it clear that he considered that "the Soviet danger is the main threat."

The announcement of the replacement of Secretary McNamara by Clark Clifford on 20 February provided an interesting insight into Soviet concerns about United States antimissile defense policy. It was reported that Soviet diplomats were primarily concerned over the answer to one question: "What does this mean regarding ABM?"⁵¹ While the Soviet press did

49. Colonel General N. A. Lomov, "On Guard over Peace," Mezhdunarodnaia Zhizn' (International Affairs), August 1967, p. 12.

50. Strom Thurmond, "The Realities of Military Preparedness," Vital Speeches, 1 April 1968, p. 357.

51. The New York Times, 25 February 1968, p. 46.

not address the question and Secretary Clifford avoided the subject during the early months of his relatively brief tenure, it seems likely that Soviet uncertainty over the depth of opposition to Secretary McNamara's methods and strategic conceptions and what influence it would have on antimissile defense deployment decisions was acute during this period and complicated the internal Soviet debate on this issue.

An important article on antimissile defense appeared in the March 1968 issue of Scientific American. Its authors, physicists Richard L. Garwin and Hans A. Bethe, carried Secretary McNamara's pessimism concerning antimissile defense capabilities farther by arguing that the proposed Sentinel system would have little ultimate effect in restraining the Chinese from attacking the United States. They pointed out that the same assured destruction forces which deterred the Soviet Union were adequate to deter China. Their chief fear was that the Sentinel system would "nourish the illusion that an effective defense against ballistic missiles is possible and will lead almost inevitably to demands that the light system ... be expanded."⁵² Seconding Secretary McNamara's argument that penetrability, not costs, was the key issue, they stated that the Chinese could also devise penetration aids adequate to assure their ability to penetrate the Sentinel system. Importantly, Garwin and Bethe disagreed with

52. Richard L. Garwin and Hans A. Bethe, "Anti-Ballistic Missile Systems," Scientific American, March 1968, p. 21.

Department of Defense statements on the mission of multiple independently-targeted reentry vehicles (MIRV): "MIRV is not a penetration aid, but is rather a counterforce weapon; if each of the reentry vehicles has very high accuracy, then it is conceivable that each of them may destroy an enemy missile silo."⁵³ They did not elaborate on this point. Other than the MIRV statement above, the article contained little that was new at the time of its publication. It was an important article because it provided a frame of reference for antimissile defense opponents both within the United States and the Soviet Union.⁵⁴

Internal opposition to the deployment of the Sentinel system became more apparent in April. Whereas individuals and small groups had previously opposed the deployment, the opposition in the United States became better organized during this period. The Senate co-opted Secretary McNamara's former role. While it was unsuccessful in stopping the deployment, the Senate became the focal point for the efforts of antimissile defense opponents. In its first attempt to remove \$342.7 million in appropriations for Sentinel system deployment from the Fiscal Year 1969 Defense Appropriations Bill, the Senate opposition was defeated by a vote of 41-17.⁵⁵

53. Garwin and Bethe, "Anti-Ballistic Missile Systems," Scientific American, March 1968, p. 25.

54. See below, pp. 181-184.

55. The Washington Post, 19 April 1968, p. A1.

Soviet fears that the North Atlantic Treaty Organization would seek to deploy antimissile defenses were reduced when its Nuclear Planning Group rejected a plan for European defenses, barring a major technological advance.⁵⁶ The Federation of American Scientists went on record as favoring a halt in all nuclear weapon tests and suspension of the Sentinel deployment on 25 April.⁵⁷ The Senate opposition gathered strength during May and June. On 19 June, Defense Secretary Clifford broke his previous silence on the issue in a letter to Senator Richard Russell, Chairman of the Senate Armed Services Committee. He stated that postponement of the Sentinel deployment would be a "serious mistake" and that failure to appropriate the funds requested would set the program back at least two years.⁵⁸ Secretary Clifford's insistence on the necessity for the Sentinel system was notably harder than Secretary McNamara's had been, but he emphasized that he did not consider an anti-Soviet system to be feasible. Influential editorial commentary during this period urged movement toward arms control rather than Sentinel deployment. Perhaps the strongest such editorial appeared in the 23 June issue of The New York Times⁵⁹ as a crucial vote on Sentinel

56. The New York Times, news article by Robert C. Doty, 20 April 1968, p. 1.

57. The New York Times, 26 April 1968, p. 87.

58. The New York Times, news article by John Finney, 20 June 1968, p. 1.

59. The New York Times, 23 June 1968, p. 46.

approached. It pointed out that the apparent slippages in the Chinese offensive missile development program could be paralleled by slippages in Sentinel deployment if the anti-China rationale was sound. The editorial further argued that in light of the recent breakthrough on the Nuclear Non-Proliferation Treaty, a delay by the United States would stimulate the Soviet Union to begin negotiations on limitation of strategic arms.

The United States internal debate was temporarily resolved on 24 June when the Senate rejected a motion to eliminate funding for Sentinel deployment from the Military Construction Bill by a vote of 52-34.⁶⁰ Senator Russell stated that he had "no doubt that this is the first block" in an anti-Soviet system.

Indirectly-associated developments in arms control in the month of June renewed United States optimism. In an obvious appeal to Premier Kosygin and the Soviet leadership, President Johnson returned to Glassboro State Teachers College in New Jersey to deliver the Commencement address. His speech contained a broad appeal for disarmament talks without a specific reference to strategic weapons or antimissile systems.⁶¹ In a subsequent address to the United Nations General Assembly, which followed a breakthrough in negotiations

60. The Washington Post, 25 June 1968, p. A1.

61. Lyndon B. Johnson, "Commencement Address at Glassboro State Teachers College; 4 June 1968," Vital Speeches, 1 July 1968, p. 481.

concerning the Nuclear Non-Proliferation Treaty on 12 June, President Johnson appealed to the Soviet Union for an early initiation of strategic arms limitation talks:

We desire - yes, we urgently desire - to begin early discussions on the limitation of strategic offensive and defensive weapons systems. We shall search for an agreement that will not only avoid another costly and futile escalation of the arms race, but will de-escalate it.⁶²

He repeated his appeal at a White House ceremony the following day where he signed a consular treaty with the Soviet Union.⁶³

References in the Soviet press to antimissile defenses were absent during the spring of 1968. No assertions of Soviet defensive capabilities were made. An otherwise authoritative survey of United States defense programs was published in April.⁶⁴ It failed to mention the Sentinel program. Instead, it focused on improvements in offensive forces, including improvement of penetration aids. These developments were reviewed in a somewhat polemical fashion and policy advocacy was avoided.

In June, a direct statement linking President Johnson with the war in Vietnam appeared in Izvestia. The article

62. The New York Times, 13 June 1968, p. 18.

63. The Washington Post, 14 June 1968, p. A1.

64. Major General V. Zemskov, "The Escalation of Militarism," Krasnaya Zvezda (Red Star), 18 April 1968, p. 3.

asserted that it was not possible to discuss international questions with the United States as long as its involvement in Vietnam continued.⁶⁵ This viewpoint was disputed one week later by an Izvestia editorial. It cited General Assembly approval of the Nuclear Non-Proliferation Treaty as evidence that "it is quite possible to settle other disputed international questions."⁶⁶ The Soviet Union was seen to be occupying the political center, with the Chinese on the left and the United States on the right. Finally, the editorial hinted at movement on arms control by lauding Article VI of the proposed Nuclear Non-Proliferation Treaty: "It is the first time that an international treaty has made it binding on its parties to press for realistic measures to achieve disarmament."⁶⁷ This period was clearly one of sharpened debate on overall Soviet foreign policy, particularly with regard to Soviet-American relations and their related arms control considerations. In a speech to the Supreme Soviet on 27 June which was attended by the members of the Politburo, Foreign Minister Andrei Gromyko reviewed overall Soviet foreign policy. Near the conclusion of his address, he announced Soviet readiness to enter into arms limitation discussions with the United States:

65. Izvestia, news commentary by Stanislav Kondrashev, 13 June 1968, p. 1.

66. Izvestia, 20 June 1968.

67. Ibid.

One of the unexplored regions of disarmament is the search for an understanding on mutual restriction and subsequent reduction of strategic vehicles for the delivery of nuclear weapons - offensive and defensive - including antimissiles. The Soviet Government is ready for an exchange of opinion on this subject.⁶⁸

Having made this announcement, he provided a thinly-disguised indication that an intense factional debate had arisen over this decision and that it had not been fully resolved:

We say to the good-for-nothing theoreticians who try to reproach us and all supporters of disarmament that disarmament is an illusion - you are marching in step with the most die-hard forces of imperialist reaction and are thereby weakening the front of the struggle against it.⁶⁹

There is little doubt that the "good-for-nothing theoreticians" Gromyko was referring to were Soviets, or possibly Chinese. Had he chosen to do so, there were abundant Western statements which could have been referred to which would have demonstrated that disarmament would continue to be a difficult problem to resolve.

It is possible to construct a highly speculative scenario which could explain Soviet actions on antimissile defense systems in the first half of 1968. Foreign Minister Gromyko's specific reference to antimissile defenses in his Supreme Soviet address seems to indicate that this issue was

68. Pravda, 28 June 1968, p. 4.

69. Ibid.

the key initial arms control question that they sought to resolve with the United States. The absence of strong assertions of Soviet antimissile defense capabilities during this period, particularly by Air Defense Forces Commander General Batitsky, seems to indicate that substantive improvements in this capability had been postponed and that major defense funds for strategic systems would continue to go to Marshal Krylov's Strategic Rocket Forces. Subsequent deployments support this contention. Construction of antimissile defense launchers in the sites around Moscow was suspended in early 1968⁷⁰ and have not been substantially resumed as of early 1972. Further, it seems likely that extensive research and development efforts were continued on improved antimissile defense systems. Such a course would be prudent should the negotiations fail and would also serve to dull opposition by air defense supporters. Those supporters could have been expected to recall the relief of former Air Defense Forces Commander Marshal Sudets by General Batitsky which took place in July 1966 and was presumed to have reflected to some degree Marshal Sudets' strong advocacy of antimissile defense systems. The "lesson" they should have drawn, if this hypothesis is correct, was that there were limits to the vehemence permitted in the advocacy of one's own bureaucratic

70. U. S., Congress, House of Representatives, Subcommittee on the Department of Defense of the Committee on Appropriations, Safeguard Antiballistic Missile System, 91st Congress, First Session, (Washington, 1969), p. 57.

interests. General Batitsky was promoted to Marshal and was made a Hero of the Soviet Union on 15 April 1968.⁷¹ Although it is not possible to determine whether these honors were based on his adherence to directives from above, they presumably would not have been accorded him if General Batitsky had opposed those directives. Finally, the absence of Soviet statements degrading the military capabilities of antimissile defense systems and frequent references to the costs of the United States system seems to indicate that the real issue was how to allocate limited defense funds. Having made the decision to probe United States intentions through negotiations, conclusion of the Nuclear Non-Proliferation Treaty and its Article VI provided a rationale for negotiating which would not give the appearance of capitulation to United States pressure or collusion. The timing of Foreign Minister Gromyko's speech, four days after a key Senate vote on deployment of the Sentinel system, has been cited by United States officials as a response to American resolve.⁷² With President Johnson's 31 March announcement that he would not seek a second term, Secretary McNamara's replacement in February, and the formation of a substantial opposition to antimissile defense system deployment in the Senate in the late spring, the Soviet leadership's concern over what direction United

71. Tass International Service in English, 2209 GMT, 15 April 1968.

72. The New York Times, 15 July 1968, p. 3.

States policy would take was probably increased. While the Senate vote may have provided a catalyst which broke an internal Soviet deadlock, the gravity of this issue certainly required a longer period of deliberation than four days.

Other than guarded favorable comments by White House Press Secretary George Christian, no official public response by the Johnson Administration to Foreign Minister Gromyko's Supreme Soviet speech was made. On 30 June, President Johnson broke this silence in a speech delivered at a dam dedication in Nashville, Tennessee. After praising the successful conclusion of the Nuclear Non-Proliferation Treaty, he turned to possible arms limitation negotiations without specifically mentioning the offer made by Foreign Minister Gromyko.⁷³ However, on the next day at a ceremony where he signed the Nuclear Non-Proliferation Treaty, the President made the following announcement:

Agreement has been reached between the Governments of the Union of Soviet Socialist Republics and the United States to enter in the nearest future into discussions of the limitation and reduction of both offensive strategic nuclear delivery systems and systems of defense against ballistic missiles.⁷⁴

A simultaneous announcement was made in the Soviet Union. Its English text differed slightly:

73. The New York Times, 1 July 1968, p. 1.

74. The Washington Post, 2 July 1968, p. A1.

An understanding has been reached between the Governments of the USSR and the United States to open early talks on a comprehensive limitation and restriction both of systems of delivering strategic offensive nuclear weapons and antiballistic missile defense systems, it is officially reported here.⁷⁵

The differences were not significant. President Johnson commented that this development was in the spirit of the Nuclear Non-Proliferation Treaty, that the United States had no illusions about the difficulty of achieving success at the talks, and that the negotiations would probably be lengthy.

Soviet statements in early July echoed these American evaluations. An Izvestia article published on 3 July stressed the connection with the signing of the Nuclear Non-Proliferation Treaty and reported a favorable world response to the announcement.⁷⁶ On 8 July, General Secretary Brezhnev addressed recent military academy graduates. He supported efforts in arms control, but warned of continued Western hostility to the Soviet Union.⁷⁷

In a message to the delegates of the Eighteen Nation Disarmament Conference in Geneva on 18 July, President Johnson linked future reductions in conventional arms to success

75. Tass International Service in English, 1530 GMT, 1 July 1968.

76. Vikenty Matveyev, "Let Us Advance Further," Izvestia, 3 July 1968, p. 3.

77. Speech by Leonid I. Brezhnev, "Loyalty to the Homeland, the Party and the People," Izvestia and Pravda, 9 July 1968, p. 1.

in "heading off a strategic arms race." He stated that a date for the commencement of bilateral United States-Soviet talks on strategic arms limitation would be set "shortly."⁷⁸ His desire to maintain the arms control momentum generated by the signing of the Nuclear Non-Proliferation Treaty was apparent.

A rare insight into the nature of the thinking of a segment of the internal Soviet opposition to the deployment of antimissile defense systems was provided by the publication of an essay allegedly written by Soviet physicist Andrei D. Sakharov.⁷⁹ This essay, probably written in June, reportedly had been circulated hand-to-hand among the Soviet scientific opposition without official sanction. Sakharov discussed three aspects of nuclear peril; simple destructive power, the cheapness of warheads, and "the practical impossibility of preventing a massive rocket attack." He cited the Scientific American article written by Richard Garwin and Hans Bethe as being representative of the opinion of "specialists." He described his assessment of the factors which assured the continued supremacy of offensive forces:

Improvements in the resistance of warheads to shock waves and to the radiation effects of neutron and x-ray exposure, the probability of the mass use of relatively light and inexpensive decoys that are virtually indistinguishable from warheads and exhaust

78. Department of State Bulletin, 5 August 1968, p. 137.

79. The New York Times, news article by Theodore Shabad, 22 July 1968, p. 16. Full text of the essay printed on p. 14.

the capabilities of an antimissile defense system, the perfection of the tactics of massed and concentrated attacks in time and space that overstrain the defense detection centers, the use of orbital and fractional-orbital attacks, the use of active and passive jamming and other methods not disclosed in the press - all this has created technical and economic obstacles to an effective missile defense that, at the present time, are virtually insurmountable.⁸⁰

While the above analysis was held to be true for nations of similar economic development, antimissile defense systems and a first strike strategy might be employed by major nuclear powers against vastly weaker states. Although he hastened to point out that this situation did not exist for the United States and the Soviet Union when confronting each other, it is possible that he was attempting to address a rationale for an anti-China system:

An exception to this would be the case of a great technical and economic difference in the potentials of the two enemies. In such a case, the stronger side, creating an antimissile defense system with a multiple reserve, would face the temptation of ending the dangerous and unstable balance once and for all by embarking on a pre-emptive adventure, expending part of its attack potential on destruction of most of the enemy's launching bases and counting on impunity for the last stage of escalation, i.e., the destruction of the cities and industry of the enemy.

Fortunately for the stability of the world, the difference between the technological-economic potentials of the Soviet Union and the United States is not so great that

80. The New York Times, 22 July 1968, p. 14.

one of the sides could undertake a 'preventive aggression' without the almost inevitable risk of a destructive retaliatory blow. This situation would not be changed by a broadening of the arms race through the development of antimissile defenses.⁸¹

The use of the pejorative words "adventure" and "preventive aggression" indicate that he probably did not favor such a rationale. His argument that development of antimissile defense systems was futile was reminiscent of Secretary McNamara and his analysis. Finally, he advocated a moratorium on construction of antimissile defense installations as a symbolic and practical response to the situation:

In the opinion of many people, an opinion shared by the author, a diplomatic formulation of this mutually comprehended situation, for example, in the form of a moratorium on the construction of systems of antimissile defense, would be a useful demonstration of a desire of the Soviet Union and the United States to preserve the status quo and not to widen the arms race for senselessly expensive antimissile systems. It would be a demonstration of a desire to cooperate, not to fight.⁸²

Significantly, Sakharov did not tie his antimissile defense system construction moratorium to limitation of other strategic arms. The tenor of his essay indicated that he did not consider that offensive force deployments seriously threatened the status quo. His sentiments were generally well

81. The New York Times, 22 July 1968, p. 14.

82. ibid.

received in the United States.

Statements by Soviet military leaders on antimissile defense were infrequent in the summer of 1968. In a radio interview on 25 July which reported the conduct of "Exercise Sky Shield," Marshal Batitsky continued his previous adherence to vague generalities when he stated that Soviet Air Defense Forces "have learned to make use of the most modern fighting means and are destroying the enemy at all altitudes and in all maneuvering conditions."⁸³

As the United States Presidential race sharpened with the approach of the national political party conventions, the leading Democratic Party candidates spoke out on antimissile defense systems. Vice President Hubert H. Humphrey doubted the wisdom of deployment, referring to "nuclear defense that would not defend anyone."⁸⁴ Senator Eugene McCarthy proposed a halt in Sentinel construction pending the conclusion of a "speedy agreement" on a mutual deployment moratorium during which further arms limitation negotiations would continue. This proposal was strongly endorsed by the editorial board of The New York Times.⁸⁵

The announcement of the scheduling of the first flight tests of the Poseidon and Minuteman III missiles for mid-August attracted the bulk of press analysis and editorial

83. Tass Domestic Service in Russian, 1600 GMT, 25 July 1968.

84. The Washington Post, 31 July 1968, p. A5.

85. The New York Times, 31 July 1968, p. 46.

comment during the first two weeks in August. Most commentary advocated test postponement pending initial discussions on arms limitation, pointing out that once multiple independently-targeted reentry vehicles had been tested they would be particularly difficult to control through agreement due to the inspection and verification problem. These protests were not heeded and the tests were conducted on 16 August. This dual test was a demonstration to the Soviet Union of United States determination to maintain the superiority of offensive weapons in an antimissile defense environment. The timing of the tests was obviously intended to press home the point. Department of Defense spokesmen declined to comment, but press analysts indicated that the tests had been successful.⁸⁶ The conduct of these tests was not mentioned in the Soviet press.

Soviet and Warsaw Pact forces invaded Czechoslovakia on 20 August. While limited editorial commentary during the months of tension which preceded the invasion linked arms limitation progress to Soviet restraint in Czechoslovakia,⁸⁷ the United States Government failed to make a direct linkage openly. Initial press reports indicated that the Johnson Administration held to a view that strategic arms limitation discussions should be pursued and that the Soviet Union might

86. The Washington Post, 17 August 1968, p. A1.

87. Typical was an editorial by James Reston in The New York Times, 24 July 1968, p. 40.

feel compelled to move faster on these negotiations to compensate for adverse world reaction to the invasion. Subsequent events revealed the wishful thinking inherent in such an analysis. White House Press Secretary George Christian announced that there was "no change" in the Administration's desire to negotiate.⁸⁸ During this period, rumors that an accord on a date for the commencement of strategic arms limitation talks had been reached just prior to the invasion circulated in Washington. Subsequent information from John P. Roche of the White House Staff revealed that a summit meeting between President Johnson and Premier Kosygin to discuss strategic arms limitation, the Middle East situation, and Vietnam was scheduled to have been announced on 21 August.⁸⁹ The circumstances of the cancellation of this announcement have not been further clarified. While most editorial commentary during this period advocated moving ahead with negotiations on the limitation of strategic arms, a majority of Congressional opinion seemed to have favored an increase in United States spending for strategic weapons. Johnson Administration officials were silent on the negotiation issue until 5 September when Secretary of Defense Clifford spoke to the National Press Club. Although he did not completely rule out the possibility of negotiations, he strongly stated

88. The New York Times, news article by Max Frankel, 22 August 1968, p. 1.

89. The New York Times, news article by M. S. Handler, 24 September 1968, p. 5.

that recent events had strengthened his "intention to seek diligently to preserve our margin of advantage" in strategic weapons.⁹⁰ President Johnson held a press conference the next day. In response to a question about progress on disarmament talks he stated, "The developments of the past few days haven't advanced the possibility of those talks."⁹¹ The attitude of the Johnson Administration during the month which followed the invasion of Czechoslovakia seems to have been one of signalling a slight qualitative change in the United States' desire to begin negotiations. In retrospect, election year domestic politics probably played a major role in this shift. No direct attempt was made to link the slight revision in policy to the events in Czechoslovakia, but such a cause was intimated.

Two major Soviet addresses in October and November repeated the readiness of the Soviet Union to begin discussions on the limitation of strategic arms. On 3 October, Foreign Minister Gromyko spoke to the United Nations General Assembly. He lauded general and complete disarmament and the successful conclusion of the Nuclear Non-Proliferation Treaty. Among other Soviet proposals for additional action in the disarmament area, he referred to the limitation of strategic arms:

90. The New York Times, 6 September 1968, p. 2.

91. The Washington Post, 7 September 1968, p. A1.

The Soviet Government proposes an agreement on concrete steps in the field of the limitation and subsequent reduction of strategic nuclear weapon delivery vehicles. The General Assembly is, of course, aware that agreement has been reached between the Governments of the USSR and the USA on limitation and subsequent reduction of strategic nuclear weapon delivery vehicles, both offensive and defensive, including antimissiles. The Soviet Government is prepared to start a serious exchange of views on this matter.⁹²

The phrases used were identical to his June Supreme Soviet address. Although the major Soviet newspapers carried full accounts of this address,⁹³ Krasnaya Zvezda, the military organ, omitted Foreign Minister Gromyko's reference to strategic arms limitation. It reported his other proposals related to arms control and disarmament.⁹⁴

On 6 November, the eve of the 51st Anniversary of the Bolshevik Revolution, Kiril T. Mazurov delivered the traditional address on behalf of the Politburo. In his review of the events of the past year, he discussed the question of limiting strategic weapons and their delivery systems:

It is relevant to recall in this connection that we have expressed readiness to conduct negotiations with the United States on the entire range of these problems. But their positive solution does not depend on

92. Pravda, 4 October 1968, p. 4.

93. Pravda, 4 October 1968, p. 4 and Izvestia, 5 October 1968, p. 4.

94. Krasnaya Zvezda (Red Star), 5 October 1968, p. 4.

the Soviet Union alone.⁹⁵

This reference was omitted from Soviet press remarks concerning this address.⁹⁶ A similar omission was made in Soviet press coverage of remarks made by Soviet Ambassador Iakov Malik at the United Nations on 13 November.⁹⁷ Clearly, a split had developed within the Soviet leadership over the desirability of strategic arms limitation negotiations at this time.

As the United States Presidential election finally developed into a contest between Hubert Humphrey, Richard Nixon, and George Wallace, it is useful to examine the probable Soviet perception of their positions on antimissile defenses. Vice President Humphrey opposed United States deployment. Nixon had issued a carefully worded statement supporting deployment in September 1967 and had remained silent on this specific issue while advocating increased United States strategic force strength in the ensuing months. On 25 September, Governor Wallace announced that he favored antimissile defense system deployment.⁹⁸ In early September, Vice President Humphrey and Richard Nixon became involved in a minor disagreement when Nixon advocated postponement of Senate ratification

95. The New York Times, 7 November 1968, p. 1.

96. Pravda and Izvestia, 7 November 1968, p. 1.

97. Pravda, 14 November 1968, p. 5.

98. The New York Times, 26 September 1968, p. 53.

of the Nuclear Non-Proliferation Treaty until after the November elections. On 6 October, The New York Times endorsed Vice President Humphrey for the Presidency, largely on the basis of his apparent commitment to arms control. On 24 October, Nixon made a strong speech attacking the acceptance of strategic parity with the Soviet Union. Faced with a hostile reaction to this position, he moved to a less controversial statement that he favored "meaningful arms control agreements with our adversaries"⁹⁹ on 26 October. Presupposing that the Soviet leadership sincerely desired to negotiate on strategic arms limitation, they would have ranked the Presidential candidates in a Humphrey-Nixon-Wallace order. On the strength of their public statements, it would have been reasonable for the Soviets to have concluded that, compared to President Johnson's position, Vice President Humphrey would have been more willing to negotiate, with Nixon and Wallace less so. In any event, it made little sense for the Soviet Union to conduct serious negotiations on substantive issues with the Johnson Administration. The interim period until a new President was to take office provided the Soviets with an opportunity to attempt to divert attention from their actions in Czechoslovakia by picturing United States intransigence as threatening to cause a new arms race. Although a few such statements were made, they repeated previously-used phrases and avoided polemical overtones.

99. The Washington Post, 27 October 1968, p. A2.

In statements which were issued in commemoration of Strategic Rocket Forces Day on 19 November, the relative Soviet silence on antimissile defenses was moderated. In a virtual repetition of the pattern established the preceding year, stress was placed on the invulnerability of Soviet offensive missiles. Marshal Krylov's statement set the tone: "The great speed, the complete automatic control over the flight of the missiles, and some other properties of the weapons make them practically invulnerable to existing systems of enemy missile defense."¹⁰⁰ The inclusion of "some other properties of the weapons" in this previously employed formulation probably was intended to infer a penetration aids capability. General Shevtsov asserted complete invulnerability.¹⁰¹ An unsigned article in Sovetskiy Patriot referred to antimissile defense:

In connection with the rapid development of nuclear-rocket technology, the combat power of the weapons of air warfare has increased considerably. Therefore, the Communist Party and the Soviet Government manifest constant concern for the anti-aircraft and anti-rocket defense of the country. A main component of our PVO forces is now the anti-rocket troops, which in cooperation with

100. Marshal N. I. Krylov, interview in Pravda, 19 November 1968, p. 2. This statement was repeated by Tass International Service in English, 2300 GMT, 18 November 1968, and Tass Domestic Service in Russian, 1530 GMT, 18 November 1968.

101. Colonel General A. Shevtsov, "The Homeland's Mighty Shield," Voyennye Znaniya (Military Knowledge), 19 November 1968, p. 7.

other branches of the anti-aircraft defense force, reliably defend the Soviet skies from all methods of air attack by an aggressor. Our anti-aircraft rockets can with great accuracy destroy all types of modern flying apparatuses at all altitudes and speeds.¹⁰²

The assertion of the impenetrability of Soviet defenses was the first since Marshal Chuikov's statement on 15 June 1967.¹⁰³

During a visit to Moscow, former Defense Secretary Robert McNamara had a Kremlin interview with Premier Kosygin on 12 November. United States Embassy spokesmen stated that the Soviet Government had requested the meeting. After he met with Premier Kosygin, McNamara insisted that "no messages had been passed" and had "no comment" on whether antimissile defense systems had been discussed.¹⁰⁴ One week later, Senator Albert Gore met with Premier Kosygin. He stated that he had told Premier Kosygin that arms limitation negotiations would be difficult to initiate until the Soviet occupation of Czechoslovakia was terminated.

On 13 November, the Department of Defense announced that it was conducting surveys in Montana and North Dakota near two Minuteman bases for possible antimissile defense sites.¹⁰⁵ This action signalled to the Soviets that the United States was considering an expansion of the mission of the Sentinel

102. Unsigned article in Sovetskiy Patriot (Soviet Patriot), 17 November 1968, p. 1.

103. See above, pp. 125-126.

104. The Washington Post, 13 November 1968, p. A1.

105. The New York Times, 14 November 1968, p. 22.

system.

A probable insight into the thinking of the Soviet military with respect to antimissile defense systems was provided in December. An article by Lieutenant Colonel V. Bondarenko pointed out that the "military-technical revolution" continued to offer possibilities for attaining military superiority. He bluntly asserted that "political organizations and their leaders" might "fail to use the emerging possibilities" of this revolution.¹⁰⁶ Whether he was "used" by more senior military leaders or by a faction in the Soviet civilian leadership was uncertain, but the message was clear. Seen in conjunction with editing of political speech coverage in Krasnaya Zvezda during the fall, it seems clear that the dominant faction within the military opposed strategic arms limitation discussions at this time but was apparently unable to convince the civilian leadership of the wisdom of their course of action. The fact that they were allowed to behave as they did indicates that the consensus which opposed their recommendations was not particularly secure.

With respect to Soviet force structure and allocation of priorities for weapons systems, Colonel Bondarenko emphasized offensive missiles, which he stated were "unstoppable." No

106. Candidate of Philosophical Sciences Lieutenant Colonel V. Bondarenko, "The Contemporary Revolution in Military Affairs and the Combat Readiness of the Armed Forces," Kommunist Vooruzhennykh Sil (Communist of the Armed Forces), 15 December 1968 (no. 24), p. 23.

mention was made of Soviet antimissile defense capabilities. Costs of antimissile defenses were regarded as crucial:

...according to preliminary calculations, the cost of a limited anti-ballistic missile system, the development of which has been initiated by the USA, will constitute 4-5 billion dollars, and a complete anti-ballistic missile defense system will cost up to 40 billion dollars.¹⁰⁷

The context of this statement indicated that Colonel Bondarenko was referring to antimissile defense systems in general, not specifically the United States system. However, the cost figures quoted were those frequently associated with the Sentinel system in the Western press.

During the remainder of the Johnson Administration, it was persistently rumored that President Johnson sought to initiate strategic arms limitation talks before leaving office on 20 January 1969. In early December, Defense Secretary Clifford spoke of the readiness of the United States to conduct negotiations. President-elect Nixon declined Administration overtures to become involved in these discussions, preferring to withhold judgment until he had officially assumed the Presidency. Later in the month, he directed his newly established staff headed by Henry Kissinger to initiate a complete study of United States defense capabilities and

107. Colonel Bondarenko, "The Contemporary Revolution in Military Affairs and the Combat Readiness of the Armed Forces," Kommunist Vooruzhennykh Sil (Communist of the Armed Forces), 15 December 1968, p. 24.

requirements. This directive was interpreted as indicating that the new Administration would not be ready for serious discussions with the Soviet Union at least until the late spring of 1969. This view was supported at a 13 January news conference by Secretary of Defense-designate Melvin Laird when he stated that the Nixon Administration should be wary of arms limitation discussions until it was properly prepared and the prospects for success were high.¹⁰⁸

A Soviet article which appeared in early January 1969 attempted to discredit the officially unspoken United States linkage of the Soviet invasion of Czechoslovakia with the delay in initiating strategic arms limitation negotiations, an allegation which had been edited from the published version of Mazurov's speech of 6 November 1968. Opposition to world opinion was invoked at this time:

There was a strong response in many countries of the world to the agreement reached by the USSR and the USA on starting bilateral talks shortly for limiting and subsequently reducing strategic nuclear delivery vehicles. A sharp polemic developed over the issue in U. S. ruling circles. Influential American circles have been blocking the start of the negotiations, using the Czechoslovak events as a pretext, and on the grounds that such negotiations would alarm America's allies. Those who favor negotiations argue, for their part, that the creation of new weapons systems would entail vast expenditures for the USA, something like \$60,000-100,000 million over a period of several years. They insist

108. The New York Times, news article by William Beecher, 14 January 1969, p. 1.

on an immediate implementation of negotiations.¹⁰⁹

While specific reference to antimissile defense systems was removed from the formulation which began this statement, the cost argument reflected earlier Soviet interpretations of American considerations. The dialectical interpretation of the United States domestic debate created the possibility of having forces suitable for the Soviet Union to appeal to without sacrificing their "progressive approach" to the prospective discussions.

Another Soviet statement linked progress on strategic arms limitation negotiations to further developments in the disarmament field. On 20 January, L. M. Zamyatin, head of the press department of the Ministry of Foreign Affairs, held a news conference. In a general survey of the overall disarmament agenda he also invoked world opinion:

The General Assembly welcomed the agreement reached by the U.S.S.R. and the U.S. Governments in 1968 to commence talks on reciprocal limitation and subsequent reduction of strategic means of delivery of nuclear weapons, including defense systems. For its part, the Soviet Government deems it necessary to reiterate its readiness to begin a serious exchange of views on this important issue. In so doing, we proceed from the premise that the steps taken to curb the strategic arms race would be consonant with the interests of strengthening international peace and security. This

109. A. Alexeyev, "Nuclear Non-Proliferation Treaty and Security," Mezhdunarodnaya Zhizn' (International Affairs), January 1969, p. 13.

would also create more favorable conditions for solving other important questions in the field of disarmament.¹¹⁰

This statement returned to the previous formulation on the agreement to negotiate, which specifically included antimissile defense systems. Its timing, which coincided with the inauguration of President Nixon, was probably intended to put the Soviet Union on recent record to counter any possible disarmament or arms control statements to be made in his address. The generally propagandistic tone of the statement supported such a contention.

Defense Secretary Clifford's annual Defense Posture Statement was published on 15 January, five days before he was replaced by Melvin Laird. Although he quickly pointed out that Soviet numerical strength had grown in calendar year 1968, his overall assessment of the quality of Soviet strategic forces attempted to demonstrate that newly developed or deployed Soviet systems were five to ten years behind their United States counterparts. For example, the SS-11 and SS-13 solid-fueled intercontinental ballistic missiles were compared to Minuteman I which had initially been deployed in 1962, the "Yankee" class nuclear-powered ballistic missile-launching submarine to the SSBN-598 ("George Washington") class deployed in 1960, and the Galosh antimissile defense

110. L. M. Zamyatin, "Concrete and Positive Program," Pravda, 21 January 1969, p. 1. Also carried by Izvestia, 21 January 1969, p. 1. and by Tass International Service in Russian, 1115 GMT, 20 January 1969.

system to the Nike-Zeus which had been abandoned in the early 1960's.¹¹¹ He concluded that the proper response to this overall threat was to maintain a credible assured destruction capability:

We remain convinced, however, that insofar as the Soviet threat is concerned, we should continue to give first priority in the allocation of resources to the primary objective of our strategic forces, namely, 'Assured Destruction.' Until technology progresses to the point where an effective ABM defense against the Soviet Union becomes feasible, our major hope for limiting damage if a nuclear war occurs is that it can be stopped short of an all-out attack on our cities. We try to bring this about by providing our forces with characteristics that will permit them to be used effectively in a limited and controlled retaliation as well as for 'Assured Destruction,' thereby being prepared for any type of Soviet attack.¹¹²

With respect to Soviet intentions for antimissile defense, he asserted that the Galosh system around Moscow could be penetrated by existing United States offensive missiles. However, in the absence of a workable agreement with the Soviet Union on the limitation of antimissile defense systems, Secretary Clifford pointed out that the United States would have to continue to plan its strategic offensive forces "on the assumption that they will have deployed some sort of an

111. Clark Clifford, Fiscal Year 1970-74 Defense Program and Fiscal Year 1970 Defense Budget, Department of Defense monograph, 15 January 1969, p. 46.

112. Ibid., p. 48.

ABM system around their cities by the mid-1970's."¹¹³ This statement reflected a slower estimate of the pace of Soviet deployments. One year earlier, former Defense Secretary McNamara had stated that such planning was to be based upon the assumption that Soviet city defenses would be in place by "the early 1970's."¹¹⁴ Secretary Clifford repeated Secretary McNamara's contention that the proper response to expanded Soviet antimissile defenses involved United States offensive forces:

In addition to the actions already taken, we have a number of other available options. We can increase from 40 to 60 per cent the proportion of bombers held on 15 minute ground alert; expand the present Sentinel system to include the defense of our Minuteman sites; accelerate the deployment of Minuteman III; load the Poseidon with more warheads than presently planned (or add penetration aids); and construct new ballistic missile submarines. If the emerging threat requires, we can accelerate development of a new, larger land-based or sea-based missile, a new manned bomber (AMSA), or all three.¹¹⁵

He hastened to add that these steps were not urgently required and could be taken as the threat emerged, keeping in mind the various leadtimes involved.

In addition to the anti-China rationale previously established for the Sentinel antimissile defense system, Secretary

113. Clifford, 1970-74 Defense Program, p. 44.

114. See above, p. 161.

115. Clifford, 1970-74 Defense Program, p. 51.

Clifford provided a partial endorsement of the "building-block" rationale and defense against accidental attack:

The Sentinel system would also have other advantages. It would serve as a foundation to which we could add defense for our Minuteman and bomber forces if that later becomes desirable. Or, if technology progresses to a point where the deployment of an ABM defense against the Soviet Union becomes feasible, it could serve as a base for a larger, more extensive system. Finally, it could protect our population against the improbable, but possible, accidental launch of a few ICBMs by any one of the nuclear powers.¹¹⁶

Having outlined these possibilities, he stated that a defense against Soviet attack was "not presently attainable." Pre-supposing that the Soviet Union was determined to deter the United States through an assured destruction capability of its own, he described probable Soviet responses to an extensive United States antimissile defense deployment by increasing the effectiveness of their offensive forces:

They could do so by installing MIRVs and penetration aids in their currently projected missile forces, deploying a new, larger payload mobile ICBM, deploying more SLBMs, etc. In that event, we would still find ourselves in a position where a Soviet attack could inflict unacceptable damage on our population and cities, even after we have spent many billions of dollars for ABM defense.¹¹⁷

116. Clifford, 1970-74 Defense Program, p. 55.

117. Ibid., p. 56.

The logical conclusion he drew from such an analysis was that antimissile defense deployment would simply fuel the arms race, with great costs and no commensurate gain in security for either side.

The proposed budgetary allocation for the Sentinel system was \$1.788 billion, an increase of \$826.0 million from allocations for Fiscal Year 1969. Funds requested for antimissile defense-associated research and development not related to the Sentinel system totalled \$175.0 million, a reduction of \$93.0 million from the budget request of the previous year.¹¹⁸

From the Soviet perspective, Secretary Clifford's statement lacked the almost missionary zeal with which former Secretary McNamara had opposed antimissile defense systems. The approach was more pragmatic and more directly keyed to Soviet actions in both offensive and defensive strategic weapons systems. A slight movement toward further United States antimissile defense deployments to defend Minuteman bases was perceptible. Although made by a "lame duck" whose successor had already been appointed, it represented the consensus of opinion of the Department of Defense bureaucracy which would essentially remain under the new Nixon Administration. From past statements made by President-elect Nixon and Secretary of Defense-designate Laird, it would have been logical for

118. Clifford, 1970-74 Defense Program, p. 65.

the Soviets to expect that the Nixon Administration would move farther from former Secretary McNamara's position.

Such a perception was supported by Representative Laird in his remarks at Senate hearings on the confirmation of his appointment as Secretary of Defense on 15 January. He supported antimissile defense system deployment, conversion of Polaris submarines to launch the multiple warhead Poseidon missile, development of a new strategic bomber to replace the B-52, and research and development of an improved inter-continental ballistic missile to replace Minuteman. As a general statement, he tended to favor lending increased weight to the opinions and recommendations of the Joint Chiefs of Staff. Finally, it was his opinion that discussions with the Soviet Union on strategic arms limitation would not commence until the summer or fall of 1969 at the earliest.¹¹⁹

On 27 January, President Nixon held his first press conference since assuming the Presidency. Two important statements with regard to arms limitations were made, although antimissile defense systems were not specifically mentioned. He began by admitting that clear-cut military superiority in strategic arms by one superpower would severely destabilize the arms race. Rather than "parity" or "superiority," he favored the concept of "sufficiency" to provide security without creating undue pressures which might stimulate an

119. The Washington Post, 16 January 1969, p. A1.

arms race. After stating that he favored strategic arms limitation talks with the Soviet Union, the President pointed out that the context of the talks was as important as when they would begin. The context he sought was one which linked progress on strategic arms limitation to progress in resolving major political differences:

What I want to do is to see to it that we have strategic arms talks in a way and at a time that will promote, if possible, progress on outstanding political problems at the same time, for example, on the problems of the Middle East, or other outstanding problems in which the United States and the Soviet Union acting together can serve the cause of peace.¹²⁰

The statement provided the first direct evidence that the United States was applying the concept of linkage to the proposed negotiations on strategic arms limitation.

Secretary Laird held his first press conference on 30 January. He stated that he favored arms limitation talks, but quickly added that to commence the negotiations without continuing to deploy antimissile defenses would "tie one hand behind our back."¹²¹ When questioned about President Nixon's use of the term "sufficiency," he asserted that, while he favored strategic superiority, he was willing to call it "sufficiency." If the President had intended to signal a slight change of attitude with the notion of sufficiency,

120. The New York Times, 28 January 1969, p. 12.

121. The New York Times, news article by William Beecher, 31 January 1969, p. 1.

Secretary Laird's remarks would have negated its value and created further uncertainty.

Soviet response to these two news conferences initially stressed the favorable attitudes of President Nixon and Secretary Laird to negotiations on strategic arms limitation.¹²² Commentary following President Nixon's remarks applauded his movement to the concept of sufficiency:

As for Soviet-American relations, here the President's statements in which he expressed the U. S. desire to hold negotiations with the Soviet Union on limiting the strategic arms race are being pointed out. In this connection, observers stress the fundamental change in Richard Nixon's phraseology. During his election campaign he spoke about the United States having to aim for military superiority over the Soviet Union and to talk with the Soviet Union from a position of strength. Now Richard Nixon mentioned neither the position of strength nor military superiority. He stated that instead of military preparations one should now only talk about sufficient military power. This, some observers believe, also manifests a more realistic approach to foreign policy questions.¹²³

The use of the phrase "some observers believe" indicated that final judgment on this concept was being withheld and that official Soviet opinion was split. The linkage aspect of the President's statement was not referred to. Linkage was

122. Tass International Service in English, 2000 GMT, 27 January 1969 and Tass International Service in Russian, 2003 GMT, 30 January 1969.

123. Tass Domestic Service in Russian, 1630 GMT, 28 January 1969.

mentioned in a Pravda article which appeared on 2 February. However, the bulk of this article was devoted to examining the concept of "sufficiency." Secretary Laird was reported to be adhering to a doctrine of nuclear superiority. The uncertainty over what President Nixon meant by "sufficiency" and the necessity for early progress on strategic arms limitation were stressed:

Commentators in foreign newspapers are trying to comprehend what actually determines the present 'nuclear policy' of the U.S.A. - a striving for 'superiority' or a recognition of 'sufficiency' in nuclear weapons. However, some of them emphasize above all the senselessness of the nuclear arms race and the necessity for new efforts in the field of disarmament. Truly time does not wait. In the present complex international atmosphere, serious measures are needed to curb the arms race and lessen the nuclear threat. The reaching of an agreement in this field is not an easy task, but life has shown it to be a realistic task, one in which all peoples have a vital interest.¹²⁴

On 6 February, Secretary of Defense Laird announced that deployment of the Sentinel antimissile defense system would be suspended during a Defense Department review of strategic forces which was expected to last about one month.¹²⁵ At a press conference on the same day, President Nixon refuted the strictly anti-China rationale for the Sentinel system which had been the system's former primary mission:

124. Viktor Mayevsky, "Not an Easy Task, but a Realistic One," Pravda, 2 February 1969, p. 5.

125. The Washington Post, 7 February 1969, p. A1.

...I do not buy the assumption that the ABM system, the thin Sentinel system as has been described, was simply for the purpose of protecting ourselves against an attack from Communist China. This system - as the system that the Soviet Union has already deployed - adds to our overall defense capability.¹²⁶

Washington rumors in the month of February seemed to indicate movement toward employment of antimissile defense to protect offensive missile bases from pre-emptive attack. On 10 February, Secretary Laird announced that construction work on Soviet antimissile defense sites around Moscow was being resumed. He surmised that the one year suspension of this construction had been done to upgrade the supporting radar installations.¹²⁷ The number of launchers at these sites has remained constant at 64 from mid-1968 to mid-1971.¹²⁸ In testimony before the Senate Foreign Relations Committee on ratification of the Nuclear Non-Proliferation Treaty on 20 February, Secretary Laird repeated his previous stand that he did not favor suspension of United States antimissile defense system deployment pending the outcome or opening of

126. The New York Times, 7 February 1969, p. 16.

127. The New York Times, news article by William Beecher, 11 February 1969, p. 1.

128. Melvin R. Laird, Fiscal Year 1972-76 Defense Program and the 1972 Defense Budget, Department of Defense monograph, 9 March 1971, p. 165. A figure of 67 "Galosh" launchers was given in The Military Balance 1970-71, (London: The Institute for Strategic Studies, 1970), p. 7. The subsequent edition of this annual report, The Military Balance 1971-72, (London: The International Institute for Strategic Studies, 1971), p. 6, reverted to 64 launchers.

negotiations with the Soviet Union. He stated that United States defenses were needed to counter the Soviet offensive missile buildup and that the Soviets were testing a "sophisticated, new antimissile."¹²⁹ This new weapon was said to have a loiter capability, much like Spartan, to allow for additional radar tracking of incoming reentry vehicles after antimissile launch. However, he concluded that complete defense against a Soviet attack would not be effective and therefore he opposed it. Clearly, Secretary Laird felt that antimissile defense could serve to extract an "entry price" from an attack by either of the superpowers against the other.

The concept of linkage was openly attacked by both sides in February. The Soviet press disparagingly referred to it as a means to pressure the Soviet Union "with the aim of obtaining concessions in the solutions of certain international problems."¹³⁰ Former Secretary of Defense Clark Clifford argued that the technological pace of weapons developments made it mandatory to commence strategic arms limitation talks as soon as possible.¹³¹ This assertion contradicted his strong advocacy of linkage which had appeared a month earlier in the Fiscal Year 1970 Defense Posture Statement

129. The New York Times, news article by John Finney, 21 February 1969, p. 1.

130. Za Rubezhom (Life Abroad), editorial by Daniel F. Kravminov, 7 February 1969.

131. The New York Times, 18 February 1969, p. 1.

where he had stated:

The Soviet incursion into Czechoslovakia made the opening of talks on this matter inappropriate last year. It is our hope that the Soviet leaders will reestablish an atmosphere in which talks can begin.¹³²

Soviet statements commemorating the 51st Anniversary of the Soviet Armed Forces generally stressed discipline rather than military hardware or capabilities.¹³³ Addresses by Marshals Grechko, Yakubovsky, and Zakharov failed to even refer to the Air Defense Forces. Marshal Batitsky's article seemed to stress antiaircraft defense:

The Party and Government have entrusted the Air Defense Forces with the defense of the fatherland's air frontiers, having created all necessary conditions for fulfilling this responsible task. The Air Defense Forces are equipped with complex and highly efficient combat technology: powerful antiaircraft missile complexes of various systems, supersonic fighter-interceptors, and modern radar stations.¹³⁴

No reference was made to defense against ballistic missiles.

A brief article, accompanied by a photograph of Air Defense

132. Clark Clifford, Fiscal Year 1970-74 Defense Program and Fiscal Year 1970 Defense Budget, Department of Defense monograph, 15 January 1969, p. 49.

133. For example, see Marshal N. I. Krylov, "One Man Command Must Be Strengthened in Every Possible Way," Krasnaya Zvezda (Red Star), 20 February 1969, p. 2.

134. Marshal P. F. Batitsky, "On Guard Over Peace and Socialism," Selskaya Zhizn' (Rural Life), 23 February 1969, p. 3.

units of the Moscow Military District with antimissiles, appeared in Izvestia on 19 February.¹³⁵ The readiness of the troops of the unit pictured was stressed, not its missile capabilities.

By early March, it was clear that Senate opposition to United States antimissile defense system deployment was growing. Opposition leaders in the Senate announced that they felt they had 53 votes against deployment of the Sentinel system, but admitted that 5 of those probable votes were wavering.¹³⁶ Although the opposition in some ways was tied to American disillusionment with the war in Vietnam and to a general dissatisfaction with military solutions to what were considered to be primarily political problems, much of it was based on the projected costs of antimissile defense systems and the perceived minimal effectiveness of the then-available systems when deployed. Some influential and highly respected Senators argued that once deployment was begun, the domestic and bureaucratic pressures to expand the thin system would prove irresistible. Senator Stuart Symington, a former Secretary of the Air Force, estimated that the total costs of an anti-Soviet system could amount to \$400 billion.¹³⁷ On 7 March, in reporting out the Nuclear Non-Proliferation Treaty, the Senate Foreign Relations Committee urged President

135. "Always on Guard," Izvestia, 19 February 1969, p. 3.

136. The Washington Post, 25 February 1969, p. A1.

137. The New York Times, 5 March 1969, p. 6.

Nixon to delay antimissile defense deployment. Influential editorial opinion also strongly urged the President to continue the deployment suspension.¹³⁸

On 6 March, Gerard C. Smith, newly appointed Director of the Arms Control and Disarmament Agency (ACDA), appeared before the Disarmament Subcommittee of the Senate Foreign Relations Committee. He asserted that an Administration decision to continue antimissile defense deployment would not adversely affect possibilities for strategic arms limitation negotiations with the Soviet Union, citing Soviet reaction to the initial Sentinel deployment decision in September 1967. He stated that he tended to favor defense of offensive missile bases as an antimissile defense mission least likely to result in an unfavorable Soviet response to United States deployment.¹³⁹ In other testimony before the Subcommittee, scientists Daniel Fink, Hans Bethe, and Jack Ruina testified that, in their opinion, there was no military danger to the United States involved in delaying deployment of an antimissile defense system.

At a press conference on 4 March which followed a European trip, President Nixon announced that a decision on antimissile defense would be made in the immediate future:

138. For example, see James Reston, "ABM, Administration's Biggest Mistake," The New York Times, 12 March 1969, p. 46; Tom Wicker, "A Decision That Makes Itself," The New York Times, 11 March 1969, p. 46; and Times editorials of 12 and 13 March 1969, p. 46.

139. The Washington Post, 7 March 1969, p. A1.

The ABM was not discussed in any detail in my conversations abroad. As far as the decision is concerned, there will be a meeting of the National Security Council tomorrow which will be entirely devoted to an assessment of that system, then during the balance of the week I shall make some additional studies on my own involving the Defense Department and other experts whose opinions I value. I will make and announce a decision at the first of next week.¹⁴⁰

He continued to adhere to the concept of linkage by stating that bilateral discussions with the Soviet Union on the Middle East should come before negotiations on strategic arms limitation.

The early months of 1969 marked the high point of overt linkage policy by the United States, a policy which had been dropped by the Soviet Union in mid-1968.

In summary, the Sentinel period produced several trends. Official statements and strategic force deployments on both sides revealed a faith in the strategy of "mutual assured destruction" to avoid nuclear war. In addition to the deployment of antimissile defense systems, each was conducting extensive research and development programs in an attempt to insure that a technological breakthrough by the other side would not result in their increased vulnerability. Concern in the United States had shifted from response to Soviet anti-missile defense deployment to growing anxiety over numerical increases in Soviet offensive missile forces. Rationales for

140. The New York Times, 5 March 1969, p. 8.

United States antimissile defense deployment to counter these increases were gaining strength. Overt Soviet dialogue was remarkably silent considering the ideological opportunities provided by the growing controversy in the United States between the "military-industrial complex" and the "liberal establishment" and increasing anti-military and anti-arms race sentiment. This unusual reticence may have reflected a deep split which had evolved into a fragile consensus within the Soviet leadership, a conviction that that forces in the United States would stop antimissile defense deployment and that Soviet meddling could prove counterproductive, uncertainty over the direction that would be taken by the Nixon Administration and a desire to probe its intentions, or a combination of these considerations.

Chapter 5

From Safeguard to Helsinki

March to November 1969

President Nixon announced his decision to proceed with limited antimissile defense system deployment on 14 March at a press conference. The basic mission of the early phases of this system, which he referred to as "Safeguard," was revised to seek protection of United States strategic retaliatory forces from a possible Soviet counterforce strike. The stated missions of this system were:

1. Protection of our land-based retaliatory forces against a direct attack by the Soviet Union;
2. Defense of the American people against the kind of nuclear attack which Communist China is likely to be able to mount within the decade;
3. Protection against the possibility of accidental attacks from any source.¹

In presenting this revised program, he stressed its defensive mission and, in an obvious signal of limited restraint to the Soviet Union, the phased nature of the planned deployment:

...the safety of our country requires that we proceed now with the development and construction of the new system in a carefully phased program; this program will be reviewed annually from the point of view of (a) technical developments, (b) the threat, and

1. "Statement by President Richard M. Nixon," White House Press Release of 14 March 1969, reprinted in the Department of State Bulletin, 31 March 1969, p. 273.

(c) the diplomatic context, including any talks on arms limitation.

The modified system has been designed so that its defensive intent is unmistakable. It will be implemented not according to some fixed, theoretical timetable but in a manner clearly related to our periodic analysis of the threat.²

He portrayed the previously approved Sentinel deployment, which provided thin area defense of cities, as possibly leading a potential adversary to conclude that the United States sought to undermine mutual assured destruction by attempting to create a thick nationwide defense against ballistic missile attack:

The Sentinel system approved by the previous Administration provided more capabilities for the defense of cities than the program I am recommending, but it did not provide protection against some threats to our retaliatory forces which have developed subsequently. Also, the Sentinel system had the disadvantage that it could be misinterpreted as the first step toward the construction of a heavy system.³

Although President Nixon did not openly refer to the scenario frequently analyzed by United States strategists which postulated destruction of residual retaliatory forces after a Soviet counterforce strike as a possible mission for Soviet antimissile defense forces, the above statement implied his

2. "Statement by President Nixon," Department of State Bulletin, 31 March 1969, p. 273.

3. Ibid.

conviction that United States defenses should not lend credence to such scenarios if employed by their Soviet counterparts. If a similar analysis had developed among Soviet strategists, it had not been reflected in open literature at that time.⁴ President Nixon alluded to this fact when he stated:

I think the Soviet Union recognizes very clearly the difference between a defensive posture and an offensive posture.

I would also point this out - an interesting thing about Soviet military and diplomatic history: They have always thought in defensive terms, and if you read not only their political leaders but their military leaders the emphasis is on defense.⁵

In another apparent signal to the Soviet Union, the President concluded that defense of the United States cities was not feasible with present technology. His statement reflected the "gut" issue of governmental responsibility to protect its citizens:

Although every instinct motivates me to provide the American people with complete protection against a major nuclear attack, it is not now within our power to do so. The heaviest defense system we considered, one designed to protect our major cities, still could not prevent a catastrophic level of U. S. fatalities from a deliberate

4. Subsequent Statements by Soviet military writers in the late summer of 1969 addressed such a scenario. See below, pp. 279-282.

5. "President Nixon's News Conference of March 14," Department of State Bulletin, 31 March 1969, p. 278.

all-out Soviet attack.⁶

In addition to this statement's intention to discredit domestic spokesmen who advocated a "thick" city defense system, it also attempted to weaken possible Soviet assessments of the feasibility of credible city defenses against a sophisticated superpower attacker. However, in response to a question concerning the willingness of the United States to abandon all antimissile defenses through mutual limitations with the Soviet Union, he pointed out that both superpowers might want to maintain some limited defenses against a possible Chinese attack:

I would imagine that the Soviet Union would be just as reluctant as we would be to leave their country naked against a potential Chinese Communist threat. So the abandoning of the entire system, particularly as long as the Chinese threat is there, I think neither country would look upon with much favor.⁷

In support of this contention, he pointed out that the Soviet antimissile defense-associated radars, which previously had been oriented only against possible United States attack, had recently acquired a degree of additional anti-Chinese orientation. Three explanations for this statement are possible. First, President Nixon may have been attempting to

6. "Statement by President Nixon," Department of State Bulletin, 31 March 1969, p. 273.

7. "President Nixon's News Conference," Department of State Bulletin, 31 March 1969, p. 279.

singal United States unwillingness to accept a "zero ABM" posture at any subsequent strategic arms limitation negotiations. Second, he may have been attempting to strengthen the image of his commitment to antimissile defense to allow them to be a more effective bargaining point for the establishment of lower offensive missile force ceilings in the prospective negotiations. Finally, by alluding that the United States might accept a relatively small number of antimissile defense launchers in such negotiations, he may have been attempting to quiet some possible concern among elements of the Soviet military that the United States would take an "all or nothing" position on antimissile defense. Taking this possible rationale a step farther, this statement could have been interpreted by the Soviets as a tacit indication that the United States would not initially seek arms reduction through negotiations. Such an interpretation would be substantiated by President Nixon's statement that preliminary arms limitation talks had only involved "freezing where we are."⁸

Implicit in the President's decision to begin the Safeguard system deployment with defense of Minuteman sites was a basic commitment to continue to base United States strategy on the maintenance of an assured destruction capability. Having convinced himself that city defenses would not save lives

8. "President Nixon's News Conference," Department of State Bulletin, 31 March 1969, p. 279.

in the face of a determined Soviet attack, he concluded that the only way to save lives was to prevent war from breaking out by deterring the Soviet Union from attacking. He argued that recent Soviet advancements in offensive strategic weapons systems had made it necessary to begin deployment procurement and site selection for antimissile defenses immediately. He noted that four major developments in Soviet strategic forces had taken place since the initial Sentinel deployment decision in 1967:

1. The Soviets have already deployed an ABM system which protects to some degree a wide area centered around Moscow. We will not have a comparable capability for over four years. We believe the Soviet Union is continuing their ABM development, directed toward either improving this initial system or, more likely, making substantially better second-generation ABM components.
2. The Soviet Union is continuing the deployment of very large missiles with warheads capable of destroying our hardened Minuteman forces.
3. The Soviet Union has also been substantially increasing the size of their submarine-launched ballistic missile force.
4. The Soviets appear to be developing a semiorbital nuclear weapons system.⁹

Faced with this threat which he typified as growing, President Nixon discussed possible United States responses, stressing their relationship to Soviet forces and perceptions.

9. "President Nixon's News Conference," Department of State Bulletin, 31 March 1969, p. 274.

These responses included:

First, we could increase the number of sea- and land-based missiles and bombers. I have ruled out this course because it provides only marginal improvement of our deterrent, while it could be misinterpreted by the Soviets as an attempt to threaten their deterrent. It would therefore stimulate an arms race.

A second option is to harden further our ballistic missile forces by putting them in more strongly reinforced underground silos. But our studies show that hardening by itself is not adequate protection against foreseeable advances in the accuracy of Soviet offensive forces.

The third option was to begin a measured construction on an active defense of our retaliatory forces.¹⁰

In selecting the third option, he sought to provide "local defense of selected Minuteman sites and an area defense designed to protect our bomber bases and command and control authorities." No local defenses were to be provided to cities by this system, another major difference between Safeguard and Sentinel. Later phases of the deployment were to provide a thin anti-Chinese area defense with additional capability against accidental attacks. Despite President Nixon's professed concern for Soviet misinterpretation of the deployment of area defenses in the former Sentinel program, seen from the Soviet perspective at this time, the end result of the full Safeguard deployment would have been to

10. "President Nixon's News Conference," Department of State Bulletin, 31 March 1969, p. 274.

approximate the area defense capability of the Sentinel system with the addition of heavier point defenses in the vicinity of the Minuteman bases in Montana, North Dakota, Wyoming, and Missouri. In addition to responding to what the Nixon Administration considered to be the most urgent threat, the phased nature of the deployment and the provision for an annual review based partially on threat developments provided some incentive for the Soviet Union to seek an agreement on limitation of antimissile defense systems at an early point in the deployment, if in fact they sought such an agreement.

To reinforce what became known as the "bargaining chip" aspect of the phased deployment plan, the President closed his prepared statement with a discussion of his perception of how the Safeguard system deployment related to possible arms control initiatives:

Since our deployment is to be closely related to the threat, it is subject to modification as the threat changes, either through negotiations or through unilateral actions by the Soviet Union or Communist China.

The program is not provocative. The Soviet retaliatory capacity is not affected by our decision. Their capability for surprise attack against our strategic forces is reduced. In other words, our program provides an incentive for a responsible Soviet weapons policy and for the avoidance of spiraling U.S. and Soviet strategic arms budgets.

I have taken cognizance of the view that beginning construction of a U.S. ballistic missile defense would complicate an agreement on strategic arms with the Soviet Union.

I do not believe that the evidence of the recent past bears out this conviction. The Soviet interest in strategic talks was not deterred by the decision of the previous Administration to deploy the Sentinel ABM system - in fact, it was formally announced shortly afterward. I believe that the modifications we have made in our previous program will give the Soviet Union even less reason to view our defensive effort as an obstacle to talks. Moreover, I wish to emphasize that in any arms limitation talks with the Soviet Union, the United States will be fully prepared to discuss limitations on defensive as well as offensive weapons systems.¹¹

Although President Nixon's remarks indicated an active interest in strategic arms limitation negotiations, the tenor of his statement was such that negotiations were not overwhelmingly seen as beneficial by themselves. Their relationship to United States threat perceptions was the key factor. A subtle drift of United States primary interest from antimissile defenses to strategic offensive systems was discernable. In his reference to apparent Soviet willingness to move toward negotiations after the 24 June 1968 Senate vote on deployment of the Sentinel antimissile defense system, the President was careful not to indicate that he considered that further deployment decisions would force the Soviet Union into greater willingness to enter into negotiations. Such an assertion might be expected to strengthen the arguments of elements of the Soviet bureaucracy who may

11. "President Nixon's News Conference," Department of State Bulletin, 31 March 1969, p. 275.

have considered the proposed negotiations to be a form of "capitulationism." Furthermore, he did not refer to the rapidly developing United States multiple independently-targeted reentry vehicle (MIRV) capability as a counter to the Soviet offensive force increases.

In addition to the statements quoted above which were directed to both the domestic and Soviet audiences, President Nixon's announcement included several assertions which were primarily intended to defuse domestic opposition to antimissile defense deployment. The psychological importance of the attempt to bring the proposed Safeguard system into line with the familiar and generally comfortable deterrence strategy rather than breaking new strategic ground was significant. His emphasis that "this deployment will not require us to place missile and radar sites close to our cities" was intended to quiet those critics who had opposed deployment since they feared the accidental detonation of a defensive warhead or that defensive sites would be a primary target of attacking missiles. He also pointed out that the short-term costs of the system would be less than the proposed Sentinel costs for the same year. Since the majority of those critics who opposed the deployment on cost grounds tended to focus their attention on projections of overall system costs, this short-term reduction argument may have been counterproductive since it lent itself to charges of duplicity.

The curious Soviet silence on the antimissile defense

debate issues in the United States was abruptly broken less than one day before President Nixon's announcement of the Safeguard program. The period of silence may have reflected internal indecision and debate over several factors. First, an uncertainty over what basic changes in United States foreign and defense policy would be made by the Nixon Administration and what their implications for perceived Soviet interests would be. Second, what the possible effects of overt Soviet statements on the issues would be and how they might influence the outcome of the United States debate. The unpredictability of United States internal political behavior which characterized this period may have deterred the Soviets from attempting to influence that debate. However, the apparently widespread public distrust of the civilian and military leadership within the Department of Defense which had grown out of the Vietnam War must have seemed to offer a tempting potential. Finally, if the Soviets were sincere in seeking arms limitation negotiations at this time, their posture on antimissile defense had to be adjusted to promote that objective. Each of these possible factors could have strengthened the arguments for adopting a "go slow" policy.

In breaking the silence of early 1969, two important articles appeared in Izvestia and Pravda and several broadcast commentaries on the Sentinel system were made. The Izvestia article by political commentator V. Matveyev established the general point of view which was to be repeated

during the spring of 1969. It was not an attack on anti-missile defense systems themselves. No reference to any interaction between United States defensive systems and Soviet offensive force postures was made. Matveyev did not mention the then-current Nixon Administration review of antimissile defense deployment questions, but he outlined the basis for a "new, distinctive movement" which was growing in the United States in opposition to the Sentinel system. In an attempt to demonstrate the growing strength of this movement, he cited opposition by former Secretaries of Defense McNamara and Clifford:

The demarcation between sober-minded and adventurous figures among the American big bourgeoisie is becoming more evident. The transformation of two figures - R. McNamara and C. Clifford - who held the post of Secretary of Defense - is characteristic. Having left the Pentagon, they now advocate the earliest possible beginning of negotiations on disarmament with the USSR.¹²

He characterized this group as an "antiwar" movement, but emphatically pointed out that it was not "directly connected" to the anti-Vietnam War protests. While his approval of the activities of this new movement was obvious, Matveyev stopped short of describing it as "progressive." Its composition was seen to represent "diverse strata" of the population, focusing its opposition on the Senate, where 47

12. V. Matveyev, "Armament and Disarmament," Izvestia, 13 March 1969, p. 4.

Senators were reported to oppose Sentinel. Only 24 Senators were said to support the system. The opposition was seen to be based on system cost, the probable obsolescence of the system when deployed, the chance of an accidental detonation of the Sentinel warhead, and "a struggle against the arms race." In support of these arguments, Matveyev cited the opinion of "specialists" who estimated that Sentinel would "require allocations 10 times - if not dozens of times" greater than the projected \$6.0 billion; Herman Kahn's evaluation of air defense systems deployed in the United States in the 1950's at a cost of over \$30.0 billion which proved to be relatively ineffective; and the B-52 accidents in Greenland and Spain involving nuclear weapons, respectively. Those who favored the deployment of the Sentinel system were depicted to include an alliance of arms manufacturers and Congressmen acting as "promoters for military business." Their influence was pictured as being powerful within the leadership of the Nixon Administration:

...different speeches are heard from the highest platforms in the United States. Their authors suggest that there should be 'no hurry' for talks, and they call for creating a 'position of strength' and so on. Calling for speeding up the arms race and developing the Sentinel system, these leaders refer to the absence of agreement with the USSR on these questions.

However, it is well known that the Soviet Government proposes that negotiations be started on limiting and curtailing both offensive and defensive nuclear weapons.

Steps that might be taken in the disarmament

field should not place one state or group of states in an unfavorable position with respect to other states. The balance of power now achieved provides an opportunity for concluding agreements on freezing and curtailing nuclear arms. Many Western observers point this out.¹³

Several interpretations can be made of the above passage. It attempted to convey continued Soviet willingness to engage in strategic arms limitation negotiations. The responsibility for the delay in initiating these talks was placed on the United States. Three diverse groups might be expected to have been the targets of this assertion. World opinion could censure the United States for failure to respond to a Soviet initiative to stop the arms race that was regarded by many as "sincere." Elements in the United States favoring arms limitation would be encouraged to move more aggressively for initiation of talks on terms more favorable to the Soviet Union. Internal opposition within the Soviet leadership would be stilled to the extent that the first two expectations were met. The earlier assertion that cost considerations were crucial to the United States antimissile defense deployment opposition was repeated in a manner which suggests that costs were also a key factor in the Soviet calculus:

Each day underlines the urgency of this problem with new force, since every day huge funds so essential for peaceful

13. Matveyev, "Armament and Disarmament," Izvestia, 13 March 1969, p. 4.

civilian needs go into military production. Across the sea they love to talk about the potentialities of the American economy. But the richest country in the world is also increasingly feeling the burden of armaments.¹⁴ [Italics mine]

The previous reference to the "balance of power now achieved," taken in conjunction with the above-inferred mutual economic problem, was probably intended to blunt any impression that the Soviet Union was moving toward strategic arms limitation negotiations from a position of less than equality with the United States. While international perceptions were undoubtedly a consideration, the internal implications of this statement seem most important. Matveyev strongly attacked those who opposed progress on disarmament:

Efficient and effective steps in the field of disarmament are necessary not to one particular country or group of countries, but to all countries without exception, since this matter affects the vitally important interests of all peoples. The sorry theoreticians who are ganging up on the struggle for disarmament, seemingly from directly opposite sides, are trying to efface and conceal this fact.¹⁵

The reference to "sorry theoreticians" was similar to that used by Foreign Minister Gromyko in his 27 June 1968 speech to the Supreme Soviet where he referred to "good-for-nothing theoreticians." Matveyev's statement came closer to the

14. Matveyev, "Armament and Disarmament," Izvestia, 13 March 1969, p. 4.

15. Ibid.

assertion that "he who is with us is against us" which probably indicated that a deep split within the Soviet leadership on the advisability of conducting strategic arms limitation negotiations with the United States existed at that time.¹⁶ The apparent abrupt change in tactics to participate actively in the United States internal debate on the deployment of antimissile defense systems reflected probable dissatisfaction of the dominant faction with the results of the prolonged Soviet silence on the issue.

Two similar analyses were broadcast to the Soviet domestic audience on the same date. Their tenor was slightly more Marxist, picturing a sharpening dialectical confrontation:

The more convincing the arguments put forward by opponents of a new round in the arms race, however, the greater the pressure exerted on Washington by the military-industrial complex and those big business circles whose appetite has

16. The failure of Soviet analysts to add "Western," "bourgeois," or "capitalist" to pejorative references to such statements regarding bodies of opinion normally indicates that factions adhering to similar opinions exist within the Soviet bureaucracy or within the socialist camp. These failures to specify the sources of pejorative references are not "errors of omission." They are made to indicate the presence of factional differences on given issues and to point out that such opposition has not passed unheeded. Their purpose may be to indicate the presence of factional conflict to the overall Party membership and the socialist camp or to publicly discredit the opposing faction, but they are not intended to influence Western opinion. Other indications of factional differences on issues may be found in the use of the introductory phrases "some comrades say" and "some people say." Of these two, the former is more specific and indicates intraparty splits.

been whetted for new and unprecedentedly large military appropriations.¹⁷

The opposition to antimissile defense deployment was again seen to be focused on its costs, probable ineffective operation, and the initiation of a "new stage in the world arms race."¹⁸ No mention was made of Soviet strategic force progress or possible negotiations on arms limitation. This general analysis was repeated in a short article in Pravda which stressed the internal debate in the United States.¹⁹

A coincident broadcast to Norway also repeated this analysis of the United States domestic debate. However, it stressed foreboding arms race predictions, noting that what was required was achievement of a disarmament agreement. After tracing the development of arms control agreements from the Partial Test Ban Treaty to the Nuclear Non-Proliferation Treaty, it turned to the question of negotiations on strategic arms limitation:

It will be recalled that the Soviet Union has proposed that negotiations should start on the limitation and reduction of nuclear arms - weapons of attack as well as defense.

Agreement has been reached between the U.S. and Soviet Governments for an exchange of

-
17. Moscow Domestic Service in Russian, 1745 GMT, 13 March 1969.
 18. Moscow Domestic Service in Russian, 2030 GMT, 13 March 1969.
 19. B. Orekhov, "Sentinel: Password for Military Boom," Pravda, 13 March 1969, p. 5.

opinion regarding a mutual limitation and subsequent reduction of strategic means for delivery of nuclear weapons. The Soviet Union is prepared to enter into a serious exchange of opinion on these questions.²⁰

Apparently convinced that the United States' desire to initiate such negotiations at an early date was absent, the Soviet Union was probably attempting to probe West European opinion for possible advantages and to discredit United States intentions.

The initial Soviet response to President Nixon's announcement of the decision to deploy the Safeguard system was interesting. The initial radio broadcast was typical of the early reaction:

We have just received a report from Washington. Speaking at a press conference at the White House, U.S. President Nixon said that the U.S. Government had decided to embark on designing and building a new antimissile system. He stated that the building of such a system would not complicate the achievement of an agreement with the Soviet Union in the area of limiting strategic installations.²¹

Subsequent early reports to the Soviet public failed to include any criticism of the decision²² and approvingly quoted

20. Moscow in Norwegian to Norway, 1930 GMT, 13 March 1969.

21. Moscow Domestic Service in Russian, 2100 GMT, 14 March 1969.

22. The same short Tass release was carried in Pravda, 15 March 1969 and in Izvestia, 16 March 1969.

President Nixon's professed willingness to engage in arms limitation negotiations. A radio broadcast favorably noted that the program's status would be reviewed annually without outlining the bases for this review.²³ Reports were concise, devoid of criticism, omitted any reference to the system's announced mission, and consistent in their citation of President Nixon's assertion that arms limitation possibilities were not affected by the decision.

The first lengthy analysis of the decision appeared on 14 March.²⁴ It began by repeating the Matveyev contention that the United States debate was essentially between the "military-industrial complex" and a "sober-minded" coalition which based its opposition on system costs, technical ineffectiveness, and arms race stimulation. President Nixon's decision was seen as a compromise brought about by pressure from both sides in this debate. It was accurately reported that the first two sites would be located in Montana and North Dakota, but the mission of the system was not mentioned. Curiously, it asserted that "experts" stated that the system would cover Washington. The most logical explanation of this statement would be a desire to equate the deployment of Safeguard with existing Soviet defenses around Moscow. Such

23. Tass International Service in Russian, 1933 GMT, 14 March 1969.

24. Moscow Domestic Service in Russian, 1030 GMT, 15 March 1969. A similar analysis was broadcast by Moscow Domestic Service in Russian, 1200 GMT, 18 March 1969.

an interpretation would favor a faction which was arguing that present and projected strategic forces were balanced and that strategic arms limitation negotiations were therefore potentially profitable.

Predictably, Soviet broadcasts to external audiences were more critical. Commentary ranged from the assertion that the decision had "released the genie of militarization from its bottle"²⁵ to quoted derogatory statements by opposing Senators who criticized the role of the "military-industrial complex" and viewed the deployment decision as one which "can make happy only the Pentagon and the members of Congress who support the arms race."²⁶ The most extensive analysis in this category stressed the basic United States dilemma of reordering its priorities from the solution of external to internal problems. The Safeguard deployment decision was seen to indicate that external considerations were still dominant and that the influence of the "military-industrial complex" was "unbridled" and the decision had been made at "the expense of the American people."²⁷ For the first time, the President's assertions that the decision was partially a response to the perceived Soviet threat and was

25. Tass International Service in English, 1425 GMT, 16 March 1969.

26. Tass International Service in English, 1450 GMT, 15 March 1969.

27. Moscow International Service in English to North America, 2300 GMT, 15 March 1969.

potentially beneficial as a bargaining tool were mentioned:

As for those who back the antimissile project, they use such arguments as a Soviet threat, which is nonexistent, or that the antimissile system would be a useful ace at disarmament talks. These arguments are ...prompted by the desire to prevent any changes being made in the United States foreign policy, changes which would contradict the interests of the profit-seeking military and industrial complex.²⁸

On a broader scale, the decision was depicted as indicating that the former "era of confrontation" had not yet been replaced by President Nixon's proclaimed "era of negotiation."

In a coincident development, the Senate ratified the Nuclear Non-Proliferation Treaty on 15 March by a vote of 83 to 15. The Izvestia report of this action stated that those Senators who had opposed ratification had "long been notorious as representatives of the military-industrial complex."²⁹ The article approvingly referred to Senator Fulbright's assertion that the results of the vote testified to the widespread orientation toward disarmament of the American people. The Senator's reference to Article VI of the Treaty was pointedly stressed. In this context, the United States antimissile debate was seen to be indicative of the future course of American foreign policy:

28. Moscow International Service in English to North America, 2300 GMT, 15 March 1969.

29. Izvestia, 15 March 1969, p. 4. A similar article was published in Pravda, 16 March 1969, p. 5.

The Senate's ratification of the Non-Proliferation Treaty is also significant in that U.S. Government circles are currently discussing issues connected with a complex choice: to begin deploying the 'Sentinel' so-called antimissile system that threatens to give new impetus to the arms race, or to take the path of seeking ways to limit and reduce the number of strategic nuclear missile weapons, in line with the USSR's proposal.³⁰

The apparent failure to reflect the President's announcement of the Safeguard system deployment made on the previous day probably indicated that this article was prepared in advance for release on the completion of the Senate's action. If this contention is correct, the assertion of a Soviet initiative on negotiations on arms control and the invocation of Article VI could have indicated that the Soviet leadership tended to seek to explore possible short-term propaganda advantages of United States hesitancy with respect to such talks. Another possible explanation of the stress laid on Article VI was to rationalize the apparently dominant faction's desire to begin negotiations with the United States.

In parallel letters to the Eighteen Nation Disarmament Conference in Geneva on 18 March, President Nixon and Premier Kosygin briefly referred to negotiations on the limitation of strategic weapons systems. Premier Kosygin's reference was included among a number of issues related to the

30. Izvestia, 15 March 1969, p. 4.

disarmament question and failed to indicate any greater willingness to discuss the issue than others traditionally cited in general Soviet articles on this subject. President Nixon's reference indicated his continued adherence to the "linkage" concept: "...the United States hopes that the international political situation will evolve in a way which will permit such talks to begin in the near future."³¹

From the Soviet perspective, a highly significant United States development in the week which followed the President's announcement was a statement on 17 March that the Joint Chiefs of Staff had dropped their advocacy of a thick anti-missile defense system deployment.³² Except for a few Senators, the Joint Chiefs had been the most persistent supporters of a nationwide area defense system. The removal of their advocacy should have somewhat allayed probable Soviet concern that the Safeguard system would be rapidly expanded into an effective protection for cities and provided some credibility to President Nixon's claims that Safeguard's mission would not degrade Soviet assured destruction capabilities. This announcement would also have weakened the stand of those in the Soviet bureaucracy who were presumably arguing that the United States deployment would inevitably expand and consequently degraded the necessity of any countering

31. The New York Times, 19 March 1969, p. 14. Full texts of both letters were printed.

32. The Washington Post, 18 March 1969, p. A1.

weapons systems they may have been advocating. While this analysis reflects the attribution of the action-reaction phenomenon to the Soviet decision-making process, it seems reasonable to expect that the perceptions of both the Air Defense Force and the Strategic Rocket Force regarding future United States force posture trends were affected.

General United States domestic reaction to President Nixon's decision was mixed. Those who had taken strong positions on the previous Sentinel system deployment tended to react in a similar manner to Safeguard. The decision to move the antimissile defense sites away from the cities somewhat quieted those who had opposed their location within major metropolitan areas. Influential editorial commentary generally opposed the decision, but applauded its "packaging."³³ The deployment's announced mission was seen to be the least destabilizing possible with respect to the strategic balance with the Soviet Union and potential arms race pressures. Most analyses were certain that the ultimate fate of the Safeguard system would be decided in the Senate and that the outcome was doubtful. The majority of these analysts were of the opinion that the Senate would reverse the decision. An early commencement of strategic arms limitation talks with the Soviet Union was uniformly advocated.

33. The New York Times, 15 March 1969, p. 32; James Reston, "Washington: President Nixon's Priorities," The New York Times, 16 March 1969, p. 15; Tom Wicker, "But What's in a Name?," The New York Times, 16 March 1969, p. 16.

On 19 March, an interesting article tracing the development of military theory since World War II appeared in Krasnaya Zvezda (Red Star).³⁴ The article's publication date suggested that it was probably prepared before President Nixon's antimissile defense deployment decision was announced. Although its tenor indicated that the author was speaking in support of increased allocations and influence for the Theater Forces and stressed ground action images, several noteworthy statements were included which pertained to strategic forces and their employment. As the title indicated, Major General Reznichenko rejected the notion that the objective of any military action should be anything other than victory. While he concluded that "nuclear weapons have become one of the decisive factors in battle" and had fundamentally altered the nature of tactics and operational skills, he quickly noted that they did not diminish "the role and significance of conventional armed struggle."³⁵ To underscore this point, it was argued that "victory cannot be achieved by one single category of troops or by a single branch of the armed forces," a probable counter to the claims of Strategic Rocket Force adherents. In a probable rebuke to

34. Doctor of Military Sciences Major General V. Reznichenko, "The Art of Winning," Krasnaya Zvezda (Red Star), 19 March 1969, pp. 2-3. General Reznichenko was Chief of the General Tactical Department of the Frunze Military Academy when the article was written. His articles on military tactics have stressed the importance of timing and surprise in military operations. His earlier military experience was in Army line units.

35. Ibid., p. 2.

those in the Soviet military who advocated numerical superiority in various weapons systems, he asserted that "battle is not a set of scales which falls on the more heavily weighted side." Leadership and the skill of military commanders were seen to be able to counteract numerical disadvantage.

General Reznichkenko made several references to the value of counterforce and first strike strategies. Invoking the words of Lenin that "activity" and the "struggle for the initiative" were crucial in war, he stated that "the most favorable conditions for displaying activity are created during an offensive since the attacker holds the initiative." Counterforce attacks were viewed as a means to alter the strategic balance in one's favor: "By the massive use of nuclear weapons it is possible to change the balance of forces and means to [the attacker's] own advantage almost instantaneously." The closely related tactic of surprise was held to be crucial:

Surprise is a very important principle of military art which determines whether victory is achieved during combat operations. Surprise makes it possible to anticipate the enemy in delivering strikes, take him unawares, paralyze his will, sharply reduce his combat capability, disorganize control, and create favorable conditions for the defeat of even superior forces.³⁶

36. General Reznichkenko, "The Art of Winning," Krasnaya Zvezda (Red Star), 19 March 1969, p. 2.

While he failed to refer specifically to antimissile defenses, General Reznichenko pointed out that in modern warfare victory is inconceivable without measures to safeguard against weapons of mass destruction. Additionally, dispersal of forces was a recommended countermeasure:

The conditions of nuclear war, if the imperialists unleash it, make it necessary to take other steps in the interest of minimizing losses in the event of a nuclear strike. It is deemed necessary to employ the kind of distribution whereby two adjacent and equally significant targets cannot be destroyed by the same nuclear explosion which is big enough to destroy only one of the targets.³⁷

In summary, General Reznichenko's article probably represented the viewpoint of those military factions which opposed a national strategy which placed too heavy an emphasis on the Strategic Rocket Forces. He apparently favored further development of conventional and strategic defensive forces, even at the expense of some numerical inferiority, preferring to rely on tactics, leadership, and organization to provide a war-winning capability. He did not refer to any concepts related to deterrence. Seen from the perspective of some elements of the Soviet military bureaucracy, the apparent highest priority given to the Strategic Rocket Forces during this period may have seemed like a movement toward a deterrent rather than a war-fighting strategy.

37. General Reznichenko, "The Art of Winning," Krasnaya Zvezda (Red Star), 19 March 1969, p. 2.

Beginning on 20 March, Defense Secretary Laird and other Department of Defense officials testified before Congressional committees in support of President Nixon's decision to deploy the Safeguard antimissile defense system. The testimony was notable in that it marked a major departure from previous Pentagon testimony by releasing previously classified intelligence information which markedly upgraded the nature of the perceived Soviet strategic threat to the United States. Although previous official statements regarding the specific Soviet weapons systems discussed had been made, Secretary Laird's unclassified testimony revealed estimates of the accuracy of the large SS-9 intercontinental ballistic missile, the current production rate of "Yankee" class nuclear-powered, ballistic missile-launching submarines, and described how the United States had detected test firings of an improved Soviet antimissile defense interceptor, all of which had previously been highly classified.³⁸ However, the most sensational aspect of Secretary Laird's testimony was his assertion that: "With the large [mega]tonnage the Soviets have they are going for our missiles and they are going for a first strike capability. There is no question about that."³⁹ Although previous Administration

38. The New York Times, 21 March 1969, p. 1.

39. U.S., Congress, Senate, Subcommittee on International Organization and Disarmament Affairs of the Committee on Foreign Relations, Strategic and Foreign Policy Implications of ABM Systems, Part I, (Washington, 1969), p. 196.

statements had expressed concern over the possible mission of the SS-9, its presumed first strike capability had not been pictured as being indicative of future Soviet strategy. Secretary Laird argued that the likelihood of the adoption of a first strike counterforce strategy by the Soviet Union in the mid-1970's made deployment of the Safeguard system mandatory.

In discussing the capabilities of the Safeguard system relative to estimates of Soviet offensive missile strength, Secretary Laird stressed his concern with Soviet force posture developments and the futility of a United States deployment of a heavy antimissile defense system to protect its cities:

The potential threat from the Soviet Union lies in the growing missile force which could destroy a portion of our retaliatory force. We cannot stop a massive Soviet attack on our cities. Technically, we just don't have the know-how. We must rely on our deterrents to insure that a nuclear attack doesn't start in the first place.⁴⁰

He repeated President Nixon's conviction that Safeguard did not produce arms race pressures and expressed some doubt that the Soviet Union was following the same nuclear strategy as was the United States:

Our obviously thin protection of cities and added protection of our deterrent forces

40. Strategic and Foreign Policy Implications of ABM Systems, Part I, p. 178.

will require no action at all from the Soviet Union, providing that the Soviet Union has a responsible deterrent nuclear war policy, as we do in the United States.⁴¹

This concern that perhaps the Soviet Union was not adhering to United States convictions regarding the dictates of what it perceived to be the rational responses to a situation of mutual assured destruction lay at the root of Secretary Laird's apprehensiveness. It represented the strongest official expression of doubt to that date that the "education of the Soviets" attempts by the previous Administrations had been successful.

Finally, Secretary Laird strongly argued that the Safeguard deployment decision signalled important United States policy convictions to the Soviet Union while acting as an incentive for serious Soviet negotiations on strategic arms limitation:

The Safeguard system is not a stumbling block to arms limitation talks with the Soviet Union. On the contrary, under the type of deployment we have chosen, this measured deployment, the Soviet Union is given an added incentive to negotiate First, the modified ABM program would show the Soviets that we are quite serious about protecting our deterrent forces, about assuring all enemies that they cannot achieve an effective low-risk first strike against the United States. Second, it will show the Soviets that we are preparing so that we will not be in a position for a low-risk attack on them, and that

41. Strategic and Foreign Policy Implications of ABM Systems, Part I, p. 190.

it is worthwhile to negotiate limits on strategic arms. Under the proposed Safeguard, even the first two installations will not be operating before 1973. This is ample time for the two countries to negotiate agreements on these and other weapons. Thus, the modified ABM opens the door wider to a mutual arms control.⁴²

In support of this analysis, he contended that Soviet press reaction to the Safeguard decision announcement was encouraging in that it viewed the system as a "purely defensive weapon." This contention is somewhat misleading in that early Soviet press response failed to directly comment on the "offensiveness or defensiveness" of the proposed system deployment except as noted below. As has been outlined earlier in this paper,⁴³ it was seen to have created arms race pressures which would hardly seem to be "purely defensive." The only reference by the Soviet press to its professed defensive nature was an uncritical comment on the content of President Nixon's announcement: "During the press conference Richard Nixon several times stressed that the antimissile defense system which he proposed was of an exclusively defensive nature."⁴⁴ It is possible that Secretary Laird's remark had been influenced by editorial commentary on the Soviet

42. Strategic and Foreign Policy Implications of ABM Systems, Part I, p. 183.

43. See above, pp. 229-232; specifically, footnote 26 and Senator Fulbright's assertion on p. 232.

44. Moscow Domestic Service in Russian, 1030 GMT, 15 March 1969.

reaction which had appeared in the United States press. James Reston's comment that the Soviets had "even reacted to President Nixon's latest decision to build an antimissile system as if we were doing them a favor"⁴⁵ was typical of this commentary.

Deputy Defense Secretary David Packard's testimony generally repeated the same arguments. In his discussion of possible United States responses to further increases in Soviet force levels, he pointedly stressed that increased United States offensive forces was an option which had been carefully studied and rejected since it "was clearly an arms race, the kind of a thing we want to avoid if we can possibly do so."⁴⁶ [Italics mine] The intimation was that the decision had been close and the intended message to the Soviets was clear.

The possible impact of this testimony on Soviet decision-makers was somewhat weakened by influential editorial opinion published during this period. On 21 March, The New York Times criticized Secretary Laird's "scare tactics" and asserted that the gravity of the alleged Soviet threat was highly exaggerated.⁴⁷ Several days later, The Washington Post denounced his apparent indulgence in "the incomprehensible

45. The New York Times, 19 March 1969, p. 42.

46. The Washington Post, 22 March 1969, p. A1.

47. The New York Times, editorial entitled "New Pentagon Ghosts," 21 March 1969, p. 46.

jargon of the professional military man" and derogatorily referred to the "mark of the deeply partisan politician."⁴⁸ What was required, the editorial argued, was a greater emphasis on the political intent of potential adversaries rather than their military capabilities. The implication of Secretary Laird's statement, that Soviet force posture developments connoted at least some indication of hostile intent, was dismissed as outmoded analysis. The net effect of these critical, frequently bitter analyses on the perceptions of the Soviet leadership of the depth of the internal domestic debate on antimissile defense deployment within the United States is unknown, but it seems likely that they may have concluded that a further deterioration in the influence of the Department of Defense on United States policy formation was probable. As will be outlined below, growing speculation on this issue was evident in the Soviet press during subsequent months.

A particularly outspoken and rare Soviet criticism of the effectiveness of antimissile defense systems appeared on 23 March. After pointing out that "strictly speaking" the United States antimissile defense deployment decision had been made in September 1967, the mission of the Safeguard system was revealed for the first time in the open Soviet press without comment:

48. The Washington Post, editorial entitled "The World of Melvin Laird Revisited," 26 March 1969, p. B4.

The current Administration has made a decision in true solemn fashion - to build antimissile launching-sites near existing missile launching-sites. As a result, the purpose of the ABM system is changed - it is no longer a defense for cities, but a defense for ICBMs.⁴⁹

After specifically asserting that "the U.S. version" of anti-missile defense systems would not insure defense against missiles, the article criticized defenses in general:

To be effective in a nuclear attack, defense must be 100 per cent. Only one missile need break through and the target is destroyed. But 100 per cent interception is impossible, especially when you consider that any investments in the ABM system are neutralized by considerably smaller investments for additional offensive means and in improvements for overcoming ABM defense.⁵⁰

This is the familiar "cost-exchange ratio" argument used persistently by former Secretary of Defense McNamara, as the article correctly noted. To reinforce this point, President Nixon's 13 March statement that "there is no means whereby we could defend our cities sufficiently"⁵¹ was cited. While only Western statements were employed to support the author's contention that effective antimissile defense was impossible, the text clearly referred to all existing forms of such systems, not just those proposed by the United States. In

49. G. Gerasimov, "About the ABM System," Pravda Ukrainy, 23 March 1969, p. 4.

50. Ibid.

51. Ibid.

addition, to its implied refutation of those in the Soviet Union who advocated antimissile defense, its tenor indicated that the author considered that President Nixon's announcement of the Safeguard system deployment decision had little effect on the overall strategic balance. Such an inference could have been a challenge to those who were presumably arguing that a different perception of United States force posture intentions was required at that time.

Having discredited the effectiveness of all antimissile defense systems, the article noted the "irrationality" of protecting offensive missiles "which are hidden in underground shelters anyway."⁵² Taken in conjunction with the assumed ineffectiveness of defenses, this attempt to imply the adequacy of silo emplacement for strategic offensive forces makes it likely to assume that the author was speaking for those who favored offensive strength, notably the Strategic Rocket Forces.

This contention that antimissile defense systems were ineffective was repeated two days later in an article which stated that "in the opinion of specialists, it does not insure defense against missiles."⁵³ The nationality of these "specialists" was omitted. The Gerasimov assertion that the

52. Gerasimov, "About the ABM System," Pravda Ukrainy, 23 March 1969, p. 4.

53. V. Rogov, "Appeal for Peace; Who Needs the 'Safeguard' System: Melvin Laird's Recommendations," Trud (Trade), 25 March 1969, p. 1.

Safeguard decision was not a departure from previous United States policy was also repeated. Citing American press analyses that pictured the decision as a concession to the "military-industrial complex" for withdrawal from Vietnam, the author, V. Rogov, argued that recent statements by Secretary Laird regarding United States disengagement from Vietnam indicated that the withdrawal would be lengthy and gradual. Therefore, he concluded, the costs of deploying an antimissile defense system would be added to the Vietnam War costs and would not serve as a substitute for them.⁵⁴ In the final analysis, Rogov stated that the Safeguard decision was an "American domestic problem" which had international consequences. Opposition to the deployment was typically pictured as focusing on system costs. Rogov concluded by noting that the ultimate fate of Safeguard would be decided by the Congress. The outcome was seen to be uncertain, particularly in the Senate.

On 25 March, President Nixon substantially repeated his 13 March arguments for Safeguard at a news conference. In an attempt to quiet some of the domestic furor surrounding Secretary Laird's remarks concerning the growing Soviet threat, he described Soviet force trends as "no cause for fright."⁵⁵ In

54. A similar analysis was made by Valentin Zorin, "On What Are the Billions Being Spent?," Pravda, 20 March 1969, p. 5.

55. "President Nixon Discusses the Vietnam Peace Talks and the AEM Safeguard System," Department of State Bulletin, 14 April 1969, p. 314.

a statement that was quickly interpreted by the Soviet press as a policy "based on positions of strength,"⁵⁶ the President stated that he did not "want the President of the United States, when he sits down at the conference table, to be in a second-rate position as far as the strength of the United States is concerned."⁵⁷ He quickly added that this statement did not suggest that he advocated an arms race since the former numerical superiority held by the United States in strategic weapons could not be regained.

Several articles criticizing President Nixon's antimissile defense deployment decision as being symptomatic of powerful pressures from the "military-industrial complex" appeared in the Soviet press in late March. These articles did not state that defensive systems would generate arms race pressures by requiring the deployment of more offensive systems, a persistent United States conviction. Conversely, one article argued that the bulk of budgetary support was already going to offensive systems:

So far, the largest amounts of capital have been and are being used to amass offensive types of weapons. The situation will hardly improve if vast sums of money are spent on some other kinds of weapons.⁵⁸

56. Moscow Domestic Service in Russian, 0500 GMT, 28 March 1969.

57. "Safeguard System," Department of State Bulletin, 14 April 1969.

58. V. Matveyev, "The Path Ahead," Izvestia, 27 March 1969, p. 3.

According to the author, V. Matveyev, the explanation for the Safeguard system deployment decision could be found in the fact that United States offensive forces had ceased to require "quantitative buildup" and that another system was needed to use the potentially available funds. Two other articles outlined the opposing forces in the United States domestic debate. Particular emphasis was given to the prospective role of the professional military and the "military-industrial complex" in determining the future course of the foreign policy of the United States.⁵⁹ The tenor of these articles revealed a degree of uncertainty concerning the probable outcome of this debate.

In the first response to the Nixon Administration's portrayal of the increased Soviet threat to appear in the Soviet domestic press, Pravda attacked Secretary Laird's "absurd assertions that the Soviet Union's 'military preparations' are allegedly responsible as the main 'argument' for this propaganda for the new armament programs."⁶⁰ The goal of these statements was seen to be an attempt to "whip up in the public an arms race psychosis" in support of the interests of the arms industry.

On 28 March, the first reaction to the Safeguard decision

59. V. Paramonov, "Missiles and Business," Sovetskaya Roosiya (Soviet Russia), 26 March 1969, p. 3 and V. Soldatov, "Billions for War," Selskaya Zhizn' (Rural Life), 26 March 1969, p. 3.

60. Georgiy Ratiani, "Mistakes Have Already Been Made," Pravda, 27 March 1969, p. 5.

appeared in the Soviet military press. Typically, the role of the "military-industrial complex" and the arms race implications of the decision were cited.⁶¹ No commentary on possible Soviet responses or Secretary Laird's use of the Soviet threat was included. The announced mission of the system to protect Minuteman sites was accurately reported. In an implicit comparison to the Soviet "Galosh" system, it was noted that only one of the proposed sites was to be built near Washington. A subsequent article, which appeared on 2 April, degraded the notion that antimissile defenses were required to protect the United States from an attack by the Soviet Union: "We understand that Americans may have differing views as to whether they need anti-missiles or not. But they hardly need these fantasies which aim at slandering the Soviet Union."⁶²

This period of extensive commentary on the Safeguard deployment decision was capped by a long Pravda article which appeared on 31 March. Its analysis of the United States domestic debate since the beginning of 1969 was keyed to a dialectical format:

-
61. Lieutenant Colonel V. Nekrasov and V. Berezin, "To the Altar of Military Business," Krasnaya Zvezda (Red Star), 28 March 1969, p. 3.
 62. Colonel A. Leontyev, "Antimissiles and Fabrications," Krasnaya Zvezda (Red Star), 2 April 1969, p. 3. See also Moscow Domestic Service in Russian, 0600 GMT, 2 April 1969.

...it is a question of a dramatic clash between two irreconcilable forces: On the one hand there are those who demand an increase in the military budget, the arms race, and a stepping up of the 'cold war,' and on the other, there are those who demand switching national wealth and human energy over to solving the complex social problems within the country.⁶³

The 6 February suspension of United States antimissile defense system construction was seen to have been a response by the Nixon Administration to public outcry. Alarmed by the implications of this suspension, the "military-industrial complex" had allegedly stepped up its pressure on President Nixon, producing the announcement of the decision to proceed with the Safeguard system. Despite this decision, its opponents were pictured as favoring "talks with the Soviet Union on limiting strategic offensive and defensive nuclear weapons."⁶⁴ The Soviet leadership had apparently concluded that the Safeguard deployment decision did not foreclose the possibility of such negotiations. President Nixon was not personally identified with the "military-industrial complex." Secretary Laird fulfilled that role. The created image of a rapidly growing body of opposition to the deployment of Safeguard which favored negotiations with the Soviet Union provided a suitable "ally" for future appeals.

In addition to statements by President Nixon on 14 and

63. B. Strelnikov, "A Dangerous 'Safety Device,'" Pravda, 31 March 1969, p. 4.

64. Ibid.

25 March, the image of the willingness of the United States to enter into strategic arms limitation talks with the Soviet Union was supported by statements by Secretary of State William Rogers on 27 March. In testimony before the Senate Foreign Relations Committee, he pointed out that there had been no indication that the President's decision had adversely affected Soviet willingness to begin strategic arms limitation negotiations:

In none of my discussions nor any of the discussions we've had in the Department with any representatives of the Soviet Union has there been any suggestion that this decision would affect either the initiation of talks or their successful outcome.⁶⁵

In response, Senator William Fulbright stated that he felt that the Soviets were not concerned about the decision because they had concluded that such systems were ineffective. His statement overlooked Soviet research and development programs on antimissile defense systems other than the "Galosh." Secretary Rogers cited the facts that the proposed system would not be operational until 1973, that the progress and necessity of the system would be reviewed annually, and that the Nixon Administration was aware of the broad public opposition to deployment as being conducive to possible arms limitation negotiations. He was particularly critical of the frequently repeated assertion that once begun the Safeguard

65. The New York Times, 28 March 1969, p. 14.

system would inevitably spread into a thick area defense of the entire nation:

...why is there this feeling that it can't be turned off? I have no doubt in my mind that if the arms talks are successful, we can stop this program just like we stopped Nike-Zeus. Why do we think we are committed forever, irrevocably, if we make this decision?⁶⁶

He concluded that the United States would be "glad" to disband its antimissile defenses if a suitable agreement with the Soviet Union could be reached.

Soviet statements degrading President Nixon's concept of "linkage" appeared again in mid-April. It was reported that high officials in the State Department opposed his professed desire to achieve settlement of "other international problems" before "beginning Soviet-American talks on questions concerning the nuclear missile race."⁶⁷ High State Department officials, notably Secretary Rogers and former Ambassador to the Soviet Union Llewelyn Thompson, were reported to be advocating the immediate establishment of a date in the summer for the commencement of negotiations. A later article by Yuri Arbatov, Director of the United States Institute of the Soviet Academy of Sciences, was more critical. He credited the concept to a "theory" in the United States that the Soviet

66. The New York Times, 28 March 1969, p. 14.

67. "Arguments in Washington," Izvestia, 10 April 1969, p. 2. See also Moscow Domestic Service in Russian, 0630 GMT, 23 April 1969.

Union was more interested than the United States in limiting strategic arms and that "there are certain concessions to be obtained in other areas for this."⁶⁸ Interestingly, he did not identify the source⁶⁹ of this "theory" and, while he attempted to outline its intent, he neither confirmed nor denied its validity. A particularly critical article which had appeared in The New York Times⁷⁰ describing President Nixon's "brinksmanship" was cited by Arbatov and may have contributed to his analysis. However, denial of the applicability of the "linkage" concept in the strategic arms limitation context had been a persistent theme of Soviet analyses of United States policy and this article was probably a continuation of that theme.

Arbatov's article, which took the form of a review of a booklet entitled "The Future of the Strategic Arms Race in the 1970's" by Professor George W. Rathjens of the Massachusetts Institute of Technology, approvingly quoted Rathjens' statement that recent technological innovations had made it necessary to resolve certain fundamental questions:

68. Yuri Arbatov, "U.S.A.: The Great Missile Debate," Izvestia, 15 April 1969, p. 5.

69. This concept was put forth in various forms by President Nixon during this period. It is generally considered to have reflected the thinking of Professor Henry Kissinger, Special Assistant to the President for National Security Affairs.

70. The New York Times, news analysis entitled "Nixon's Highly Risky Game in the Sphere of Soviet-American Relations" by Robert Kleiman, 7 April 1969, p. 42.

Conditions are now favorable - more so than they will be at any other moment in the foreseeable future - for the U.S. and the U.S.S.R. to adopt resolutions that will allow both countries to avoid a new upturn in the arms race, or at the very least, to make the upturn less steep.⁷¹

The key technological innovations were antimissile defenses and multiple independently-targeted reentry vehicles (MIRV). Arbatov pointed out that the antimissile defense debate in the United States had entered a "decisive phase" which would be resolved in the "immediate future." His analysis of this debate followed the familiar lines of arraying the forces of the "military-industrial complex" against those who favored social development. In a slight break with the Talensky-Kosygin contention that minimizing losses in a possible nuclear war through the use of antimissile defenses was purely defensive and therefore "innocent," he argued that attempts to fulfill this mission would accelerate the arms race. Although Soviet articles had frequently cited specific United States antimissile defense deployment decisions as contributing to arms race pressures, Arbatov's statement was the first to include all such systems in the analysis. Similar analyses were common in United States writings at that time and fit neatly into the prevalent action-reaction model which

71. Arbatov, "The Great Missile Debate," Izvestia, 15 April 1969, p. 5. The quotation cited by Arbatov is from George W. Rathjens, The Future of the Strategic Arms Race in the 1970's, (New York: Carnegie Endowment for International Peace, 1969), p. 12.

dominated the thinking of those who opposed the deployment of the Safeguard system on arms race grounds.⁷²

President Nixon's 18 April news conference again avoided reference to "positions of strength" in evaluating United States response to his assessment of the increased Soviet strategic threat, stating that he sought to "avoid falling into a second-class or inferior position"⁷³ with respect to the Soviet Union. The President pointed out that the United States did not seek to reattain a position of strategic superiority over the Soviet Union. His previously announced adherence to the concept of "sufficiency" was held to be adequate. In response to a question regarding his evaluation of growing opposition within the Senate to his deployment decision, he indicated that his conviction that the decision was correct was undiminished and that it would be narrowly upheld by the Senate.

On 26 April, it was announced that the traditional May Day military parade in Moscow's Red Square had been cancelled and that in future years the only Moscow military parade would be held on 7 November, the Anniversary of the Bolshevik Revolution. No reason was given for this policy decision. Interestingly, preparations and rehearsals for the parade had

72. For example, see Senator George S. McGovern in a book by the Center for the Study of Democratic Institutions, Anti-Ballistic Missile: Yes or No?, (New York: Hill and Wang, 1969), pp. 15-23.

73. "President Nixon's News Conference of April 18," Department of State Bulletin, 5 May 1969, p. 379.

begun, but were halted in mid-April.⁷⁴ Some Western speculation as to the cause of this decision at the time of the cancellation predicted imminent major changes in the composition of the Poliburo. Subsequent events have shown this hypothesis to have been incorrect. Another theory which received wide interest among Western analysts of Soviet affairs involved the linking of the unsuccessful Red Square assassination attempt by a member of an elite Red Army unit, an abnormally large number of unexplained deaths of senior Soviet military men in early 1969, and the disappearance of several other high military leaders as indicative of a possible abortive coup attempt. A minority theory, largely circulated in newspapers, saw the cancellation as an attempt to soften the Soviet image abroad in the aftermath of the invasion of Czechoslovakia. Some element of doubt as to the utility of this particular form of military capability demonstration was seen to be a factor. The efficient conduct of the invasion of Czechoslovakia, increased worldwide exposure to units of the Soviet Navy, and the perceived growing power of its strategic power by other nations fulfilled the same goals as did the military parade in a more subtle and convincing manner.

A group of articles by Soviet military leaders appeared in the May Day period. Formulations concerning air defense capabilities failed to refer specifically to antimissile

74. The New York Times, news article by Max Frankel, 30 April 1969, p. 13.

defenses and maintained the vague reliability theme which had persisted since early 1968. The statement of First Deputy Defense Minister Marshal Ivan Yakubovskiy was typical:

The country's Air Defense Forces, which include antiaircraft missile forces, fighter aircraft, radiotechnical and special forces capable of reliably hitting all modern means of the enemy's air attack at great distances from the objectives being defended, at all ranges of altitude and speeds of flight.⁷⁵

Marshal Zakharov of the General Staff referred to the ability of the Strategic Rocket Forces to penetrate antimissile defenses: "Their global type rockets have an unlimited range of action; they are not only capable of carrying warheads of colossal potency, but also of traversing enemy antimissile networks."⁷⁶

As the spring of 1969 progressed, the opposition in the Senate tended to focus on two possible responses to President Nixon's Safeguard deployment decision. Those who opposed deployment outright sought to deny the necessary funds. A second group attempted to establish a deployment moratorium with continued research and development pending the outcome of initial negotiations with the Soviet Union on a possible limitation of all strategic weapons.

75. Marshal I. Yakubovskiy, "At Battle Posts," Sovetskaya Roosiya (Soviet Russia), 9 May 1969, p. 1. See also General S. L. Sokolov, "A Great and Natural Victory," Krasnaya Zvezda (Red Star), 9 May 1969, p. 2 and Tass International Service in English, 1350 GMT, 7 May 1969.

76. Marshal M. Zakharov, "On Guard Over Socialism and Peace," Partinaya Zhizn' (Party Life), no. 9, p. 13.

The Nixon Administration held firmly to its stand that the increased Soviet strategic capability required the immediate commencement of antimissile defense deployment. On 25 April, Secretary Laird argued that Safeguard was a minimal step that should be taken to cover the contingency that arms limitation negotiations might not be successful. He concluded that if the Soviet Union's strategic buildup had been intended to establish a situation of strategic parity it should have been halted or slowed. Noting that it continued unabated, he asserted that the Soviet goal was superiority.⁷⁷ This conclusion was supported by the report of a Department of Defense study group headed by Deputy Defense Secretary David Packard which submitted its review of United States strategic force posture to President Nixon on 1 May.⁷⁸ The fact that this review had been delivered to the National Security Council two months ahead of its previously announced completion date of 1 July was seen to reflect an Administration desire to begin negotiations with the Soviet Union on strategic arms limitation at an early date.

Open Soviet response to Secretary Packard's report was notably polemical and confined to one article which appeared on 5 May. The tone of the report was seen to be hostile to the Soviet Union, reflecting a desire to return to the "unforgettable days" of 1949 when "the United States still

77. The Washington Post, 25 April 1969, p. A1.

78. The New York Times, 1 May 1969, p. 1.

enjoyed a nuclear monopoly."⁷⁹ Pointing out that such a situation had "not existed since then and will never exist again," the article implied Soviet supremacy and stated that the United States sought a first strike capability:

...of greatest interest is undoubtedly the policy which stresses the broad increase in offensive forces in order to overtake the Soviet Union and preserve the possibility of making a surprise attack at any moment.⁸⁰

Forces to achieve this goal were seen to be an increased inventory of intercontinental ballistic missiles, including some which were to be carried by submarines.⁸¹ Pointedly, these developments were contrasted with the statements of United States officials "who never tire of assuring the U.S. public of their readiness to finally begin negotiations on the limitation of nuclear arms 'at the end of spring or at the beginning of summer.'"⁸²

The 8 May publication of the study "The ABM: An Evaluation

79. Yuriy Zhukov, "The Nuclear Tail and the Non-nuclear Dog," Pravda, 5 May 1969, p. 5.

80. Ibid.

81. This reference was to the Underwater Long-Range Missile System (ULMS) then being studied by the United States Navy and Department of Defense officials. This new system, similar to Polaris/Poseidon in operational concept, would employ larger submarines with intercontinental range ballistic missiles to enlarge its potential operating areas in an attempt to reduce its vulnerability to the antisubmarine warfare (ASW) efforts of potential adversaries.

82. Zhukov, "The Nuclear Tail," Pravda, 5 May 1969, p. 5.

of the Decision to Deploy an Anti-Ballistic Missile System"⁸³ commissioned by Senator Edward M. Kennedy was pictured as evidence of the sharpening of the United States domestic debate by the Soviets. Major emphasis was given to its conclusion that antimissile defense deployment would seriously handicap efforts to achieve arms limitation agreements. Additional analysis was devoted to the report's statements that Secretary Laird's assertion of the increased Soviet threat was "unconvincing" and that the Safeguard deployment would promote a renewed arms race.

Internal United States debate during the month of May centered on the Nixon Administration's evaluation of the threat posed by the existing Soviet inventory of large SS-9 missiles, its rate of increase, and the potential Soviet capability to install multiple warheads on this weapon. The SS-9 was held to be capable of delivering a single 20 to 25 megaton warhead, a triplet of 5 megaton or a sextet of 1 megaton multiple warheads.⁸⁵ The Nixon Administration argument,

83. Jerome Wiesner and Abram Chayes, eds., The ABM: An Evaluation of the Decision to Deploy an Anti-Ballistic Missile System, (New York: Signet Broadside, 1969), pp. 130-144.

84. N. Kuryumov, "Commotion in the Pentagon," Pravda, 8 May 1969, p. 5. See also "Position Sent to Congress," Izvestia, 7 May 1969, p. 1 and Tass International Service in Russian, 1348 GMT, 7 May 1969.

85. U.S., Congress, Senate, Subcommittee on International Organization and Disarmament Affairs of the Committee on Foreign Relations, Strategic and Foreign Policy Implications of ABM Systems, Part 1, 91st Congress, First Session, (Washington, 1969), p. 286.

made by Director of Defense Research and Engineering John Foster, was that the three warhead configuration constituted the primary threat to the Minuteman sites. Tests of this weapon on 13 April had employed three reentry vehicles which had impacted in a line along the flight path of the missile.⁸⁶ Dr. Foster declined to confirm positively whether these re-entry vehicles had been simply multiple reentry vehicles (MRV) or multiple independently-targeted reentry vehicles (MIRV). Projecting present forces and deployment rates ahead to 1975, he argued that the Soviet Union would have 500 SS-9 boosters with three warheads each at that time. With the estimated accuracy (0.25 nautical mile or 1500 feet) of this weapon, he concluded that fewer than 100 Minutemen would survive a counterforce attack if the missile sites were not defended by Safeguard.⁸⁷ Based upon these assumptions, he further argued that an immediate start on the Safeguard deployment was required to have defenses in place at that time. Finally, he seconded Secretary Laird's doubt that the Soviet goal was parity. The validity of these calculations, which were typical of those employed by Department of Defense strategic analysts and planners, was disputed by non-governmental experts who basically disagreed with the assumptions used in

86. The New York Times, 22 April 1969, p. 1.

87. U.S., Congress, House of Representatives, Subcommittee on the Department of Defense of the Committee on Appropriations, Safeguard Antiballistic Missile System, 91st Congress, First Session, (Washington, 1969), p. 9. For a summary of the testimony, see The New York Times, 22 April 1969, p. 1.

the Department of Defense analysis.⁸⁸ Their varied assumptions generally led to conclusions which degraded the gravity of the Soviet threat or disputed the Nixon Administration's proclaimed optimism about the feasibility of defending the offensive missile sites with the Safeguard system. Other non-governmental analysts, notably Albert Wohlstetter, attacked the assumptions made by the opponents of antimissile deployment arguing that defense of Minuteman sites was the least destabilizing action which the United States could take in response to the increasing vulnerability of its land-based offensive missile systems.⁸⁹

Addressing graduation exercises at the United States Air Force Academy on 4 June, President Nixon delivered a strong attack on those "new isolationists" whom he asserted were undermining United States security interests. He firmly opposed any form of "unilateral disarmament,"⁹⁰ but stated

88. The most vehement of these experts were Ralph Lapp and George W. Rathjens. A summary of Lapp's testimony may be found in The New York Times, 9 April 1969, p. 1. Rathjens' later testimony was summarized in The New York Times, 25 April 1969, p. 1. A further analytical challenge was included in Jerome Wiesner and Abram Chayes, eds., The ABM: An Evaluation of the Decision to Deploy an Anti-Ballistic Missile System, (New York: Signet Broadside, 1969). A superb summary of the disagreement of the Wiesner and Chayes book with Dr. Foster's assumptions may be found in Strategic and Foreign Policy Implications of ABM Systems, Part II, pp. 590-595.

89. The New York Times, news article by William Beecher, 26 May 1969, p. 13.

90. The New York Times, 5 June 1969, p. 1. The full text of the address was printed on p. 30.

that he was prepared for "new initiatives in the control of arms." With regard to military spending, he repeated his earlier statement that he preferred to err on the side of too much rather than too little. Although the address was primarily intended for the domestic audience, President Nixon was apparently attempting to counter any unexpressed Soviet hopes that domestic opposition to his foreign and military policies would cause him to moderate those policies substantively. Soviet reaction to the address was critical, but confined itself to summarizing adverse response in the United States.⁹¹

Washington "leaks" in early June indicated that the intelligence services were split on their interpretation of the implications of the Soviet strategic buildup. The Central Intelligence Agency reportedly disagreed with the Defense Intelligence Agency's conclusion that the Soviet Union sought a counterforce first strike capability.⁹² This controversy, which attacked the roots of the Nixon Administration's case for the deployment of the Safeguard system, was apparently resolved by 18 June when the United States Intelligence Board reportedly concluded that the Soviet Union sought a strategic posture slightly greater than parity⁹³ and was not moving

91. B. Orekhov, "U.S. Public Alarmed," Pravda, 7 June 1969, p. 5.

92. The New York Times, 1 June 1969, p. 2.

93. The New York Times, 18 June 1969, p. 1.

toward the attainment of a first strike capability. Reflecting this conclusion, Secretary Laird modified his previous statement that "there is no question that the Soviets are going for a first strike" to the effect that "the SS-9 is a first strike weapon."⁹⁴ His emphasis indicated that this evaluation was based upon this weapon's capabilities rather than its apparent intent.

President Nixon's news conference of 19 June revealed that the United States had specifically proposed to begin strategic arms limitation negotiations with the Soviet Union on 31 July.⁹⁵ The President indicated that the proposal had been made to Soviet Ambassador Dobrynin by Secretary Rogers on 12 June. He noted that no reply from the Soviet Union had been received. In response to a question concerning continued United States testing of multiple warhead offensive missiles as a possible obstacle to reaching an arms limitation agreement, President Nixon repeated his conviction that any unilateral actions by the United States "would not be in our interest." Assessing the strength of Senate opposition to the deployment of Safeguard, he concluded that it would be narrowly approved. His estimate was that 51 Senators supported deployment, 46 opposed it, and 3 were undecided. Finally, he pointed out that recent Soviet multiple warhead

94. The Washington Post, 24 June 1969, p. A1.

95. "President Nixon's News Conference of June 19," Department of State Bulletin, 7 July 1969, p. 2.

tests impacting in the Pacific Ocean had further convinced him of the necessity of immediately initiating antimissile defense deployment.

Overt Soviet response to this news conference was confined to radio commentary on the President's announcement that he would not halt the testing of "missiles with multiple warheads."⁹⁶ The proposed date for the commencement of negotiations was not mentioned. A domestic broadcast cited testing of multiple warhead missiles by the United States as an action that would lead to "a new round in the arms race."⁹⁷ Whether such tests had been conducted or not was not addressed. Whereas the earlier broadcast to international audiences briefly discussed "considerable" Senate opposition, the domestic broadcast was confined to polemical commentary on arms race pressures.

Soviet press commentary on issues related to antimissile defenses increased in June. At the core of most of the articles was the concern that the United States was committed to the attainment of a "position of strength" prior to entering strategic arms control negotiations with the Soviet Union. One analyst expressed concern that the dual development of antimissile defenses and multiple independently-targeted reentry vehicles would "further aggravate international

96. Tass International Service in English, 0952 GMT, 20 June 1969.

97. Moscow Domestic Service in Russian, 1300 GMT, 20 June 1969.

tensions, particularly between the two major world powers."⁹⁸ Of the two developments, antimissile defense was seen as the least harmful. A second article briefly referred to the inability of antimissile defenses to provide complete protection of defended areas. Significantly, this article placed President Nixon among those who opposed the "military-industrial complex-inspired" goal of positions of strength: "For his part, the President believes that 'sufficiency' and not 'superiority' is the word that should be applied to nuclear weapons."⁹⁹ Such a statement implied that therefore President Nixon was a suitable "ally" for strategic arms limitation negotiations, since he also opposed the real enemy in the dialectical struggle, the "military-industrial complex." Invoking the opinion of "specialists," the author firmly discredited attempts to attain military superiority: "Superiority no longer holds out military advantages and has become an irrelevant concept."¹⁰⁰ Such a statement is clearly at odds with assertions of Soviet military writers, who have consistently assumed military superiority to be the goal of the Soviet Union in post-1968 articles.¹⁰¹ It is interesting

98. V. Shestov, "Nuclear Rubicon," Mezhdunarodnaia Zhizn' (International Affairs), June 1969, p. 62.

99. G. Gerasimov, "Pentagonia, 1969," Mezhdunarodnaia Zhizn' (International Affairs), June 1969, p. 48.

100. Ibid.

101. For example, see Major General K. S. Bochkarev, "V. I. Lenin and the Building of the Armed Forces of the USSR," Morskoi Sbornik (Naval Digest), February 1969, pp. 4-5;

to note that the author, G. Gerasimov, had also written an earlier article which was the most critical assessment of the effectiveness of antimissile defenses to have appeared in the open Soviet press to that date.¹⁰² A subsequent article by E. Strelnikov, Pravda Washington correspondent, criticized the Nixon Administration's argument that Congressional approval of the Safeguard program would improve the prospects for negotiations with the Soviet Union as being part of a "positions of strength" policy:

It has lately been more and more openly hinted that in Washington Congressional approval will be needed as a 'trump' in forthcoming American-Soviet negotiations on curtailment of the strategic arms race. In other words, certain people in the U.S.A. would like to conduct the conversations from a position of strength. Many

A. Galitsan, "For a Leftist Line," Voenno-istoricheskii Zhurnal (Military-historical Journal), March 1969, pp. 12-13; Colonel I. Seleznev, "V. I. Lenin - The Founder of Soviet Military Science," Krasnaya Zvezda (Red Star), March 1970, pp. 9-16; Lieutenant Colonel V. Ivanov, "Scientific Leadership Principles for Defending the Socialist Fatherland," Kommunist Vooruzhennykh Sil (Communist of the Armed Forces), August 1969, pp. 9-16; General S. L. Sokolov, "Our Revolution Knows How to Defend Itself," Sovetskaya Roosiya (Soviet Russia), 23 February 1971, p. 2; Major General S. Ilin, "A Powerful Factor for Victory," Krasnaya Zvezda (Red Star), 12 March 1971, p. 5; Major General Y. Sulimov, "A Policy of Active Counteraction to Aggression," Krasnaya Zvezda (Red Star), 1 June 1971, pp. 2-3; Colonel Y. Vlas'yevich, "Dynamics of Military Economic Expenditures," Kommunist Vooruzhennykh Sil (Communist of the Armed Forces), August 1970, pp. 16-22; and Lieutenant General I. Zavylov, "New Weapons and the Art of War," Krasnaya Zvezda (Red Star), 30 October 1970, pp. 2-3.

102. See above, pp. 244-246.

are saying that approval of this Pentagon thesis, which is incompatible with the tasks of improving American-Soviet relations, would be a tremendous mistake for the United States. Practice has long since shown that attempts to hold talks with the Soviet Union from a position of strength are doomed to failure in advance.¹⁰³

While it appeared that the dominant faction within the Soviet leadership at this time continued to partially subscribe to the "go-slow" tactics which had preceded President Nixon's Safeguard deployment decision, the internal Soviet tactical debate on how to proceed with regard to strategic arms limitation negotiations with the United States probably sharpened during the summer months. The above cited articles were generally representative of the viewpoint of those who favored such negotiations. The arguments put forth in these articles concerning the "principle of equal security" and denouncing United States attempts to negotiate from a "position of strength" have remained persistent themes during the subsequent conduct of the Strategic Arms Limitation Talks (SALT) in Helsinki and Vienna. Gerasimov's statement that military superiority had become an "irrelevant concept" was significant. The utility of military superiority has been a cornerstone of Soviet military doctrine. Open advocacy of this principle was absent during the period from April to July 1969, probably reflecting a concern for its

103. B. Strelnikov, "Nuclear Pig in a Poke," Pravda, 10 June 1969, p. 5.

possible effect on the United States domestic debate on anti-missile defense system deployment. If this hypothesis is correct, the policy of relative silence was a tactical decision and Gerasimov's statement was an element which supported that policy. The complete absence of military statements challenging the principle of attaining military superiority since 1969 seems to minimize the possibility that its utility was being debated in the late spring of 1969 and that Gerasimov's statement had factional implications. An ongoing internal debate on the strategic implications of superiority probably continued throughout this period, but it was submerged to allow the Soviet Union to present a somewhat less bellicose image to non-domestic audiences, notably those in the United States.

The previous Soviet assertions that the Safeguard system differed only slightly from the Sentinel deployment initiated by the Johnson Administration was challenged in July. The Sentinel was described as a "light" system, while Safeguard was termed "heavy." After pointing out that neither system was capable of guaranteeing that all incoming warheads would be intercepted, the article described the provocative nature of the Safeguard deployment decision:

From the military and political point of view, the decision to deploy the ABM system cannot be interpreted as anything but a provocation against the socialist countries, notably the Soviet Union. It is not excluded that the American hawks may at some particular moment decide that this system of antimissile defense is sufficiently effective

and launch a nuclear and missile war.¹⁰⁴

While such a scenario has been widely employed in Western arguments by those concerned with Soviet antimissile defense efforts, it had not appeared previously in open Soviet analyses. It refuted the Talensky-Kosygin thesis that antimissile defenses were nonprovocative in nature. Whether this contention reflected "mirror image" thinking, merely attempted to make a propaganda point, or represented a realistic Soviet concern is highly speculative, but such an interpretation would fit conveniently into an image that United States force posture trends required additional Soviet strategic force deployments.

In a statement that was generally interpreted as signifying Soviet willingness to open negotiations on limitation of strategic arms, Foreign Minister Andrei Gromyko favorably commented on such discussions in an address to the Supreme Soviet on 11 July:

The Soviet Government has already reported on its readiness to enter into an exchange of opinions with the USA on so-called strategic weapons. The U.S. Government has stated that it is preparing for an exchange of opinions. The Soviet Government is also ready for this. One would like to express the hope that both sides will approach this question with recognition of its great importance.¹⁰⁵

104. Y. Yuriev, "United States' 'New' ABM System," Mezhdunarodnaia Zhizn' (International Affairs), July 1969, p. 129.

105. Pravda, 11 July 1969, p. 4.

Although Gromyko failed to respond specifically to President Nixon's proposal to begin the negotiations in the first half of the month of August, the tone of the address was conciliatory with respect to the United States and "welcomed" the "Age of Negotiation" concept formerly advanced by the President.

On 27 June, the Senate Armed Services Committee reported out the bill authorizing expenditures for the deployment of the Safeguard system. The Committee approved deployment by a vote of 10 to 7.¹⁰⁶ The release of the majority and minority opinions on 8 July revealed that neither side showed any tendency toward compromise. These views and the hardening of positions typified the evolution of the internal United States debate which had followed President Nixon's 14 March announcement of his deployment decision. A collateral development had been to downgrade the importance of signaling to the Soviet Union. Both sides concentrated on influencing the domestic debate. Statements which concerned themselves with possible Soviet responses were employed to strengthen more pressing domestic arguments. The general perception of either side in this respect was that those who favored deployment and were basically concerned with the maintenance of United States strategic force viability saw Safeguard as a response to an increased Soviet threat to a portion of those forces in the form of its strategic posture

106. The Washington Post, 28 June 1968, p. A1.

and demonstrated capabilities, as a symbol of United States resolve to maintain minor strategic superiority or parity with Soviet forces, and as a valuable negotiating tool if arms limitation discussions began. The opposition, which primarily opposed antimissile defense system deployment on absolute cost and national priority considerations, argued that deployment would be interpreted as an indication that the United States sought to regain substantial strategic superiority and therefore would adversely affect the possibilities for future negotiations with the Soviet Union. This concern of the opposition for possible Soviet reaction was cited as a major consideration in the presentation of the Cooper-Hart amendment to the bill on 23 July. This amendment advocated continued research and development of antimissile defense systems pending the outcome of initial arms limitation discussions. As the month of July progressed, political analysts predicted a narrow victory for the Nixon Administration, with the largest margin seen to be six votes.¹⁰⁷

As the crucial Senate vote on Safeguard deployment drew closer, Soviet press coverage increased slightly.¹⁰⁸ The assessment of the United States domestic debate had changed

107. The New York Times, news article by William Beecher, 18 July 1969, p. 1.

108. N. Kurdyumov, "Who Is Advocating Safeguard?," Pravda, 5 August 1969, p. 5 and "Which Way Will the Scales Tip?," Izvestia, 7 August 1969, p. 3.

little since the initial analyses of the preceding March. An extremely close vote was predicted. The familiar dialectical image of the opponents in the debate was put forth:

There is a struggle going on in the United States. On one side is the mighty 'military-industrial complex,' striving to plunge the country into the abyss of an accelerated arms race and possible new military adventures. On the other is the increasing resistance of sober-minded Americans who understand the catastrophic consequences of the proposed course.¹⁰⁹

The favorable reference to "sober-minded Americans" indicated that there were substantive forces within the United States with whom it would be possible to negotiate on strategic arms limitation without regard to the outcome of the Safeguard vote. The assertion that those forces were "growing" implied that their influence would continue to increase. An alternative explanation was that the Soviet Union was simply interested in making propaganda points through their interpretation of the United States internal debate.

On 6 August, the Senate voted in favor of allocating the necessary funds for the initial deployment of the Safeguard system. The margin was 51 to 50, with all Senators voting and Vice President Spiro Agnew casting the deciding vote. Had this measure been defeated, research and development of more advanced antimissile defense systems than Safeguard would have been continued. The amendment sponsored by

109. B. Orekhov, "Struggle," Pravda, 28 July 1969, p. 5.

Senators Cooper and Hart limiting funds to further research and development of Safeguard was similiarly defeated, 51 to 49.¹¹⁰

Predictably, the narrow Nixon Administration victory in the Senate vote on the deployment of the Safeguard system was pictured as a victory for the "military-industrial complex" by the Soviet press. Quotations supporting the argument that the decision portended an accelerated arms race to satisfy its needs were exclusively obtained from sources in the United States.¹¹¹ Holding to the former general line, antimissile defense deployments as such were not viewed as promoting the arms race. The role of the "military-industrial complex" was seen to be critical. The image of the Safeguard system as the "tip of the iceberg" of future demands of this group was frequently employed.¹¹² Perhaps most important were repeated statements that the results of this vote did not indicate the final defeat of the "sober-minded" forces in the United States debate:

The Senate vote still does not mean the end of the struggle in the Congress on

110. The New York Times, news article by William Beecher, 7 August 1969, p. 1.

111. N. Kurdymov, "The United States: To Please the Military-Industrial Complex," Pravda, 6 August 1969, p. 5. Among those quoted were The New York Times, Senators Cooper, Kennedy, and McIntyre and former Vice President Humphrey.

112. Ibid. See also Moscow Domestic Service in Russian, 1620 GMT, 8 August 1969.

the antimissile defense program, the more so since outside the capitol millions of Americans are making increasingly resolute demands for active steps to curtail the arms race.¹¹³

Several analysts pointed out that the debate represented the first great challenge to the influence of the "military-industrial complex:"

Yesterday's voting in the Senate thus reflects the growing antiwar sentiments in the United States. For the first time in many years was the government's decision on deployment of another system of armaments seriously questioned in the Congress with the support of rank and file Americans.¹¹⁴

A more pessimistic analysis stressed that "it cannot be ruled out that the military-industrial complex may throw everything into an active offensive which will threaten the world with extremely dangerous consequences."¹¹⁵ The Senate vote was seen to have revealed several key developments in the United States; the fact that the Senate was "no longer representative," the instability of the position within the Congress of those who supported the Nixon Administration, and the first clear indication that a bipartisan

113. Kurdyumov, "To Please the Military-Industrial Complex," Pravda, 6 August 1969, p. 5.

114. Tass International Service in English, 1044 GMT, 7 August 1969.

115. Moscow Domestic Service in Russian, 1620 GMT, 8 August 1969.

coalition opposed to escalating the arms race was forming. By implication, the Nixon Administration was pictured as favoring such an escalation. However, the Soviet press stopped short of directly accusing the Administration of such an intention. This reaction kept Soviet options open. While not foreclosing the possibility of opening negotiations with the Nixon Administration, propaganda points could be scored by asserting that United States actions were responsible for the continuation of the arms race. Nevertheless, the influence of the opponents of increased armaments was still seen to be ascendant. Given these circumstances, most Soviet statements on the future of the arms race stressed that its escalation was a probability, not a certainty. The assertion that "Washington's far-reaching plans for creating a so-called ABM defense system could be another dangerous step along the slippery path of military preparations"¹¹⁶ was typical.

In the weeks which followed the Senate vote, Soviet press commentary on antimissile defense subsided. Although this relative silence could be explained by the fact that the United States decision was no longer "news," it probably also reflected an internal Soviet debate on how to proceed. Despite press statements during the spring and summer expressing doubt that the wishes of the United States

116. A. Grigoryants and G. Tikhonov, news article in Trud (Trade), 12 August 1969, p. 1.

"military-industrial complex" could be overridden, it seems likely that some elements within the Soviet bureaucracy had hoped that the Senate vote would have at least postponed the Safeguard deployment. Two possible interpretations of arguments presumably put forth by these elements seem likely. First, those who favored negotiations could have used a vote against Safeguard to attempt to convince opposing factions that such negotiations were in the interest of the Soviet Union and likely to yield United States concessions that even hard-line elements could view as positive. An image of a United States willing to make concessions on strategic arms could have been inferred from a defeat of the Safeguard deployment. To avoid being attacked as "capitulationists" responding to the challenge of the United States deployment decision, it is possible that this element sought to rationalize its interest in moving ahead with negotiations through adherence to Article VI of the Nuclear Non-Proliferation Treaty.¹¹⁷ Such a stance could also be expected to yield some propaganda advantages with other states. An unsigned Izvestia article which appeared on 21 August stressed this viewpoint:

The parties to the treaty have pledged to conduct negotiations on effective steps for ending the nuclear arms race. The Soviet Government takes a very serious attitude toward this provision of the

117. Previous statements which seem to have established such a rationale are outlined above, pp. 232-233.

treaty. For its part, our Government has repeatedly expressed its readiness to conduct such negotiations for the purpose of finding mutually acceptable solutions to this highly important problem.¹¹⁸

Such an interpretation is typical of that outlined by those in the United States who have advocated a "soft" approach to the Soviets. In their view, United States restraint was seen to strengthen the case of Soviet advocates of negotiation. Inasmuch as Soviet willingness to enter negotiations has apparently followed "hard" United States actions, the validity of this interpretation is highly questionable.

An alternative hypothesis could be that the Soviets who favored negotiations argued that the Safeguard vote was indicative of United States willingness to respond to the Soviet strategic buildup and that the commencement of negotiations would inhibit further United States force posture developments. The fact that Soviet overtures regarding strategic arms limitation negotiations have followed "hard" United States actions strengthens the validity of this hypothesis.

The interests of the probable opponents of this faction were evident in statements which had been appearing during the summer challenging the assertion that antimissile systems were purely defensive.¹¹⁹ This view was again questioned on

118. Unsigned article, "An Obstacle on the Path of Miliarism and Aggression," Izvestia, 21 August 1969, p. 1.

119. See above, pp. 270-271.

23 August in an article which rhetorically challenged the Safeguard deployment decision:

You say that your only concern is defense, but how does the other side interpret your intentions? Will it not see preparations for an aggressive nuclear first strike in your concern for defense? Indeed, the temptation for such a strike could increase since in strengthening your defense, you are insuring greater invulnerability from a counterstrike. And will the other side's suspicion, which has already been aroused because of your excessive nuclear arsenal, not be increased?

In short, will the Safeguard system not lead to a new spiraling of the arms race, since new weapons, including the MIRV cluster - multicharge independently targeted nuclear warheads - are already waiting their turn in the design offices and testing grounds?¹²⁰

The underlying suspicion of the United States' intentions as reflected by its armaments programs was strikingly similar to Secretary Laird's analysis of Soviet strategic force posture trends of the preceding spring. Whether this analysis indicated Soviet adherence to the popular United States action-reaction model or was an attempt to blame an accelerated arms race on the United States is open to speculation. Elements of both possible explanations probably were factors in the internal Soviet debate at that time, but in light of other articles which questioned United States intent during August and September it seems more likely that this article was attempting to demonstrate that the Safeguard system was

120. S. Kondrashov, "After the Capital's Stormy Days," Izvestia, 23 August 1969, p. 4.

indicative of accelerating strategic weapons programs. By implication, conditions were not favorable for profitable negotiations on strategic arms limitation.

Breaking the silence of the Soviet military, Marshal Krylov of the Strategic Rocket Forces authored a far more strident article which appeared on 30 August in commemoration of the 30th anniversary of the beginning of World War II. Noting that Germany had begun that war with a surprise attack on Poland,¹²¹ he asserted that the United States was preparing to initiate a similar attack on the Soviet Union. The United States was clearly singled out as the main enemy of the Soviet Union. China was not mentioned. It is possible that Marshal Krylov was arguing against those in the Soviet bureaucracy who may have been supporting strategic arms limitation negotiations with the United States to free resources for military procurement to counter Chinese capabilities. He attacked the argument that the goal of victory in war had become obsolete with the advent of nuclear weapons. He did not challenge Soviet statements on that subject and concentrated his attack on Western attempts to mislead world opinion:

The imperialist ideologists are trying to lull the vigilance of the world's people by having recourse to propaganda that there will be no victors in a future nuclear war.

121. Marshal Krylov neatly omitted the Soviet activity on Poland's eastern frontier and did not refer to the Molotov-von Ribbentrop Pact which had preceded the invasion.

These false affirmations contradict the objective laws of history.

Victory in war, if the imperialists succeed in starting it, will be on the side of world socialism.¹²²

While his arguments could be interpreted as an attempt to justify continued or increased appropriations for the Strategic Rocket Forces (strong strategic forces were seen to be mandatory), the overall tenor of the article and the gravity of its assertions suggested that Marshal Krylov was attempting to influence larger issues.

The apparent conviction that United States intentions with regard to strategic arms limitation negotiations were being used to cover an extensive buildup of its strategic forces was expressed in an early September article. While the author failed to carry the argument to Marshal Krylov's conclusion that surprise attack preparations were being made, he criticized "linkage" and asserted that the Nixon Administration's unexplained delay in initiating talks had made reaching an agreement more difficult:

The talks on missile systems projected at the beginning of 1968 were intended as a further step toward containing the nuclear arms race. The Johnson Administration put off these talks, using the excuse of the events in Czechoslovakia. The Nixon Administration put them off another seven months

122. Marshal N. I. Krylov, "The Rocket Might of the Homeland," Sovetskaya Roosiya (Soviet Russia), 30 August 1969, p. 6.

so far without giving any particular reason.

But the actual reason has been clear enough. The new administration wanted to get started a major program of ABM installations, and production of multiple warhead missiles. This was designed to present the Soviet Union with a fait accompli, change the balance of forces in negotiations and make it extremely difficult to achieve agreement on any reduction of the arms race. ¹²³

The reference to the "linkage" concept was interesting. Previous Soviet articles had not hesitated to criticize the Nixon contention that strategic arms limitation negotiations would have to follow the resolution of other international problems as being indicative of his following such a policy. In this article, "linkage" was only ascribed to the Johnson Administration and was directly connected with the Soviet invasion of Czechoslovakia. Failure to imply that President Nixon also adhered to such a policy was probably intended to strengthen the argument that his delay in beginning arms limitation talks was solely an attempt on his part to add to existing United States strategic forces. This article failed to conclude that negotiations were contrary to Soviet interests, but carefully pointed out that they were not likely to produce any significant changes in existing force levels, particularly antimissile defenses:

123. Victor Perlo, "Alliance of Militarists and Arms Manufacturers," Mezhdunarodnaia Zhizn' (International Affairs), September 1969, p. 22.

Realistically, a real defeat for the ABM is difficult to envisage. Research on the ABM is already underway. Various 'Senators' proposed 'compromises' that would authorize the program to go forward to a lesser extent than the Administration demands. Much of the Congressional opposition is not on the principle of opposing a further step in the arms race but strictly on technical and economic grounds. This segment of the opposition is ready to 'compromise.'

Hence the likelihood remains that this program with its potential mushrooming into a \$100 billion bonanza for the armament kings, will move forward this year, although the pace of its advance may be slowed somewhat.¹²⁴

The stress on other than arms race considerations by the opposition also supported the basic conviction that the United States' intentions at this time were hostile. While previous analyses had failed to refer to this opposition as "progressive," its motivation and goals had been viewed as positive.

The assertion that the United States was uniformly hostile to the Soviet Union was mildly refuted in a Pravda article which appeared on 24 September. Analyzing American developments, the article favorably reported that a growing number of "far-sighted" Senators and Congressmen were concluding that the "best way to security is in developing peaceful relations with the Soviet Union."¹²⁵ Referring to United

124. Perlo, "Alliance," Mezhdunarodnaia Zhizn' (International Affairs), September 1969, p. 22.

125. B. Strelnikov, "Underground Rumble and Capital Echo," Pravda, 24 September 1969, p. 4.

States strategic weapons programs, antimissile defenses were viewed as drawing resources from needed domestic social programs. Previous allegations of their sinister purpose were not repeated. A particularly interesting reference was made to the development of multiple independently-targeted reentry vehicles (MIRV):

It is common knowledge that the Pentagon has already started working on this 'next' weapon which cannot be called defensive under any circumstances. The Joint Chiefs of Staff and Defense Secretary Laird demand that they be allowed to start testing MIRV as soon as possible. It is said that these tests have already started surreptitiously.¹²⁶

Announced tests of Minuteman III and Poseidon missiles which were equipped with such warheads had been conducted periodically since 16 August 1968.¹²⁷ The attempt to depict these tests as imminent could have been used to intimate a sense of urgency in initiating negotiations. To have emphasized this point more strongly would have made the author vulnerable to charges of capitulationism. A more likely, but highly speculative, explanation of this "oversight" would have been an attempt to avoid any implications of United States technical superiority prior to the commencement of negotiations. Although informed members of the Soviet bureaucracy were no

126. Strel'nikov, "Underground Rumble," Pravda, 24 September 1969, p. 4.

127. By this time, a total of 15 tests of Minuteman III and 9 tests of Poseidon which had been announced in the United States press.

doubt aware of United States testing progress, an admission of the apparent success of these programs would have exposed claims of the equality or superiority of existing and planned Soviet strategic forces to some doubt. The best way to have countered such doubt would have been to make statements regarding the Soviet multiple warhead testing program then in its early phases. Since up to the time of the writing of this paper in early 1972 the Soviet leadership has not commented on its multiple warhead program, it seems reasonable to speculate that they considered the expressed United States uncertainty on this issue more productive. Denial that United States development of advanced weapons was proceeding rapidly was consistent with the perception that the Soviet Union was ready to enter talks from a position of strategic parity. In retrospect, this article probably reflected the temporary resolution of the more intense internal debate within the Soviet bureaucracy which had been evident from the notably more bellicose statements which had emerged during the latter half of the summer. The absence of published challenges to the statements put forth by those who were emphasizing the "United States threat" seemed to indicate that the margin for this decision was narrow. If this hypothesis is correct, the decision to begin strategic arms limitation negotiations with the United States was made in the latter half of September.

Continuing the less polemical analysis of the United States antimissile defense deployment, an extensive article

describing the elements of the proposed Safeguard system appeared on 1 October. Employing descriptions from open Western sources, penetration aids, radar blackout, atmospheric sorting, computer programming difficulties, and nuclear effects were discussed in a sophisticated, straightforward manner. Although no attempt was made to degrade the effectiveness of the system, it was not held to be impenetrable: "The breaching of the ABM system by a part of the attacking missiles cannot be excluded."¹²⁸ Brief critical references were made to the role of the "military-industrial complex" in forcing the deployment decision and to Secretary Laird's use of the "Soviet threat." No mention was made of possible future negotiations on the limitation of strategic arms.

On 18 September, President Nixon addressed the General Assembly of the United Nations. While he referred to other international problems, such as the Middle East, no reference was made to "linkage." The limitation of strategic arms was seen to be the "most important task" facing the United States. He reiterated the readiness of the United States to begin such negotiations.¹²⁹

On the following day, Soviet Foreign Minister Andrei Gromyko spoke to the same body. He did not respond to the

128. Colonel-Engineer M. Belousov, "The Offspring of the Monopolies and the Militarists," Za Rubezhom (Life Abroad), October 1969, p. 22.

129. The New York Times, 19 September 1969, p. 16.

President's remarks. Asserting that the "Soviet Union has made its position clear"¹³⁰ with respect to bilateral talks with the United States, the bulk of his address concerned itself with a multilateral approach to the solution of outstanding international problems.

Congressional approval of the Military Appropriations Bill on 5 October provided the spark for several Soviet analyses which concluded that the United States had begun "another round in the arms race."¹³¹ Predictably, the role of the Pentagon and the "military-industrial complex" were viewed as critical.¹³² In addition to the arms race implications, the passage of the bill was seen as contributing to actions which would "inevitably lead to new sources of military conflicts."¹³³ The larger issue of the balance of forces within the United States was stressed:

It is clear that the implementation of the Safeguard plan will result in a sharp growth of the U.S. military-industrial complex's power and the expanded influence on all life in the country by militarists and reactionaries.¹³⁴

130. The New York Times, 20 September 1969, p. 10.

131. Moscow Domestic Service in Russian, 1830 GMT, 5 October 1969.

132. Moscow in Czech to Czechoslovakia, 1630 GMT, 8 October 1969.

133. B. Strelnikov, "To Please the Pentagon," Pravda, 6 October 1969, p. 5.

134. ibid.

However, these trends were pictured in general terms. No reference was made to the former image of United States adherence to a first strike strategy.

Statements reminiscent of those made in mid-1968 by Soviet scientist Andrei D. Sakharov¹³⁵ were put forth in an 8 October news conference in Washington by Soviet physicist Pyotr L. Kapitsa.¹³⁶ Professor Kapitsa, who was travelling in North America under the sponsorship of the Soviet Government and had lectured on physics earlier in Canada, termed antimissile defense systems "a waste of urgently needed funds." Like Sakharov, he cited the March 1968 Scientific American article by Richard Garwin and Hans Bethe¹³⁷ as being a "magnificent" analysis of the dim prospects for an effective antimissile defense system. Endorsing the prevalent United States action-reaction model of strategic force posture developments, Kapitsa stated that deployment of United States antimissile defenses "will only increase the number of missiles in the Soviet Union." Although it is not known what Kapitsa's actual stand on these issues was, his statements while in the United States under the "sponsorship" of the Soviet Government raised the likelihood that they were intended to strengthen the arguments of those in

135. See above, pp. 180-183.

136. The New York Times, news article by Walter Sullivan, 9 October 1969, p. 1.

137. See above, pp. 169-170.

the United States who opposed antimissile defense system deployment. Put bluntly, they may have been a "plant."

Considering the announcement of the commencement of preliminary talks on strategic arms limitation on 25 October, a radio commentary made on 21 October was significant. Citing concern within the United States over future Soviet-American relations, the commentator was quick to point out that "if these opportunities have not been taken it is not the Soviet Union's fault."¹³⁸ Obstacles to improved relations included United States commitment to holding talks only from "positions of strength," the imposition of "linkage" (referred to by the Soviets as "package deals") to obtain concessions from the Soviet Union on other issues in return for movement on arms limitation, and the desire to "weaken the unity of the socialist community." Pointedly arguing that the Soviet Union was not going to alter its course, it was stated that the United States "needs these agreements no less than our country."¹³⁹ Finally, having repeated that United States "intransigence" was solely responsible for the delay in initiating strategic arms limitation negotiations, the willingness of the Soviet Union to begin talks was restated. The timing of this broadcast indicated that its purpose was to prepare the Soviet people

138. Moscow Domestic Service in Russian, 1620 GMT, 21 October 1969.

139. Ibid.

for the negotiation announcement.¹⁴⁰ The stress on the assertion that it did not signify any change in Soviet policy was particularly relevant and reflected the nature of the stance which had probably evolved in late September.

On 25 October, a joint coordinated announcement of "preliminary discussions" on strategic arms limitation was made in Moscow and Washington:

Confirming the agreement reached earlier to enter into negotiations on curbing the strategic armaments race, the governments of the United States and the U.S.S.R. have agreed that specifically designated representatives will meet in Helsinki on November 17, 1969, for preliminary discussion of the questions involved.¹⁴¹

United States domestic reaction was favorable, but not overly optimistic about early progress in these negotiations. The need for both the United States and the Soviet Union to display "more urgent determination to reverse their arms race

140. A news article by Max Frankel which appeared in The New York Times on 26 October discussing the announcement of the commencement of negotiations cited White House Press Secretary Ronald Ziegler as stating that the place and time for the talks had been proposed to President Nixon by Soviet Ambassador Dobrynin on the morning of 21 October and that the President had immediately accepted. The radio broadcast cited above was made at 12:20 Washington time (EDT) which indicated that it may have been prepared in advance and released after President Nixon's acceptance was known in Moscow.

141. White House press release dated 25 October 1969, Department of State Bulletin, 10 November 1969, p. 396. The same text was printed in Izvestia and Pravda on 26 October 1969. The text was not commented upon at that time.

than either has exhibited thus far"¹⁴² was a typical reaction.

Secretary of State Rogers held a news conference on 25 October after the announcement of the Helsinki preliminary discussions. He emphasized that the United States approach to these talks was serious, flexible, and without false hopes. The goal was an agreement which would be "mutually advantageous" for each side. Although he stated that the United States was "not going to exclude any subject," he characterized the talks as being primarily concerned with "hardware" matters:

We are not talking about détente, or anything else. We are talking about whether it makes sense for the two of us to continue to spend immense amounts of money for the next 5, or 10, or 15 years on strategic weapons and end up at the end of that time in the same relative position - or whether it would be wiser to use the money for other purposes.¹⁴³

Finally, although he did not directly refer to "linkage," he insisted that the "talks are not conditional in any way."

Early Soviet analysis stressed favorable world reaction to the announcement.¹⁴⁴ Maintaining the dialectical image

142. The New York Times, 27 October 1969, p. 44.

143. "Secretary Rogers Discusses Forthcoming U.S.-U.S.S.R. Talks on Curbing Strategic Arms," Department of State Bulletin, 10 November 1969, p. 393.

144. "A Useful Start," Izvestia, 28 October 1969, p. 5. See also Moscow Domestic Service in Russian, 1900 GMT, 28 October 1969.

of United States motivations, an editorial comment in The New York Times that "the political pressures against the talks may well turn out to be impressive" was pointedly included. A similar view was put forth by Pravda Washington correspondent B. Orekhov on 4 November. The potential role of the "military-industrial complex" and the financial outputs of a renewed arms race were emphasized:

This is why the military-industrial complex of the U.S.A. cannot be indifferent to the idea of slowing the strategic arms race and why it is so evident that it will spare nothing to inculcate Americans with pessimism about the forthcoming negotiations, which it anathemizes.¹⁴⁵

The "anti-linkage" theme was repeated by Yuri Barsukov on 31 October when he cited conflicting statements by Secretary Rogers, House Minority Leader Gerald Ford after a White House meeting, and Presidential Press Secretary Ronald Ziegler. Given these statements, he expressed uncertainty as to the Nixon Administration's approach to the meetings in Helsinki.¹⁴⁶

Soviet President Nikolai V. Podgorny delivered the traditional address in ceremonies celebrating the 52nd Anniversary of the Bolshevik Revolution. Although his address indicated approval of the agreement to negotiate on arms

145. B. Orekhov, "A Real Chance," Pravda, 4 November 1969, p. 5.

146. Izvestia, 31 October 1969, p. 5.

limitations, he offered several qualifications. President Podgorny firmly asserted that the "situation of things in the world" made it necessary for the Soviet Union to maintain its military strength. United States actions with regard to its weapons programs were viewed as "unconstructive." He specifically attacked any possible United States intentions to employ "positions of strength" tactics in the forthcoming negotiations: "We have never allowed and will not allow anybody to talk to the Soviet Union from a position of strength."¹⁴⁷

The military parade on 7 November was devoid of new weapons. There were fewer ballistic missiles displayed than in previous parades. The addresses by senior military men were notably less bellicose than statements which were made during the preceding summer.¹⁴⁸

Soviet press commentary immediately prior to the commencement of the preliminary discussions in Helsinki stressed three broad themes: favorable worldwide response, the seriousness of the Soviet Union in its approach to the talks, and the existence of forces in the United States opposed to the prospect of negotiations. World opinion was seen to have concluded that a favorable outcome of the talks would enhance international security:

147. Pravda, 7 November 1969, p. 2.

148. The New York Times, news article by Bernard Gwertzman, 7 November 1969, p. 1.

The international public attaches great significance to these talks. For if they succeed in curbing the strategic arms race, not only would those powers who possess them benefit from it, but also all states, inasmuch as international security would be considerably strengthened. A positive outcome of the talks would undoubtedly help improve Soviet-American relations and preserve and strengthen peace throughout the world. On the other hand, a further buildup of strategic arms can only intensify the threat of thermonuclear war, with its catastrophic and ruinous consequences for all mankind, and can increase even more the already great international tension.¹⁴⁹

After quoting from President Podgorny's 6 November address, it was asserted that the "Soviet Union is filled with determination to achieve positive results to restrain the race to create ever more destructive means of attack and counter-attack."¹⁵⁰ While the motivations and seriousness of the United States Government were not openly questioned, the existence of opposition to conducting strategic arms limitation negotiations with the Soviet Union was noted. A campaign by "militarist circles" was seen to be the driving force behind this opposition. Particular emphasis was given to an address delivered by Secretary Rogers on 13 November. His statements that both the United States and the Soviet Union had "enough strategic weapons to destroy each other" and that the negotiations would be "long and difficult" were endorsed. However, his apparent reversal

149. N. Nikolayev, "Before the Meetings in Helsinki," New Times, No. 46, 14 November 1969, p. 12.

150. Ibid.

on the importance of the concept of "linkage" was noted with concern:

But the chief thing in Rogers' speech was a single short sentence. In speaking of the forthcoming discussions in Helsinki, Mr. Rogers found it necessary to stress that these will inevitably be influenced 'by events in other areas.'

Many journalists who had come to Helsinki were puzzled by this formulation of the question, for during a press conference only 20 days ago the same Mr. Rogers had underlined exactly the opposite: the discussions in Helsinki would by no means be connected with other problems in the relations between East and West.¹⁵¹

This shift was cited as providing "additional testimony to the furious struggle of opinion" in Washington. The apparent concern of the Soviet Union with the implications of "linkage" seems to have reflected some degree of uncertainty over the prospect of bilateral negotiations in this area of national security which is perceived to be so vital for all states, particularly those which aspire to major world roles. In this context, "linkage" provided a focal point for those concerns. It was probably not the crucial issue.

From the bureaucratic perspective, the Soviet groups which could have been assumed to have had direct interests

151. M. Sagatelyan, "On the Eve of the Helsinki Meetings," Izvestia, 16 November 1969, p. 2. For the full text of Secretary Rogers' speech, see "Strategic Arms Limitation Talks," Department of State Bulletin, 1 December 1969, pp. 465-468. The passage stressed by Mr. Sagatelyan appears on p. 467.

involved in a decision to enter into arms limitation discussions with the United States at this time were the economic planners, the military, the foreign policy intelligentsia, and the scientific elite. Although it is not possible to determine the influence of these bureaucratic perceptions on the Soviet decision, it is possible to outline briefly probable concerns of these groups.

The economic planners normally associated with light industry and consumer goods production could have been expected to favor negotiations if they felt the resources devoted to the production of strategic weapons systems would be substantially diverted from military production to civilian purposes. If they considered that these resources would be simply reallocated to other military programs, their support for negotiations would presumably have declined. If a technological spin-off effect from strategic weapons development and production similar to that experienced by the United States had been evident in Soviet programs, there would have been grounds for them to oppose negotiations if resources were to be diverted to conventional weapons programs with a diminished technological pay-off. On marginal utility grounds, they may have favored continued spending on offensive systems rather than antimissile defense, since the perceived military and political advantages of such a policy were apparently assumed to be greater. In viewing short-term considerations, the reported slowdown in Soviet economic growth during the period of 1968-69 may have influenced

their position.¹⁵² However, since the conduct of the negotiations was generally expected to be lengthy, short-term considerations were probably not crucial. A second group of economic planners, those associated with heavy industry, have strong long-established links with the military and probably opposed negotiations. To the extent that their larger interests were tied to the perception that advanced weaponry was the area where the Soviet Union had competed most successfully with the United States, their stake in maintaining existing programs would have been enhanced. However, if resources devoted to the production of strategic weapons were anticipated to be shifted to other programs which were largely dependent on heavy industry, such as shipbuilding or tank production, for example, this opposition would probably have diminished somewhat. Additionally, if repeated Soviet policy statements stressing the need for increased output of consumer goods represented more than "window dressing," the planners in both areas may have anticipated a significant reallocation of resources if arms limitation talks led to reduction in overall rates of defense spending.

The overall position of "the military"¹⁵³ was to oppose

152. This trend was reversed in 1970 due in part to drastically increased agricultural output. However, key economic indicators revealed that this economic recovery was broadly based.

153. Although it appears that a consensus opposing the Soviet Union's negotiating with the United States on the limitation of strategic arms existed at this time, Soviet military experience has not been without intra-service rivalry and disputes over doctrinal and policy

entering negotiations as has been argued above. The concern that the talks might lead to agreements which would adversely influence existing programs and overall Soviet force posture was probably most influential. Since the military was then in the process of making great across-the-board progress in altering the strategic balance with the United States, any move which could restrict that progress was likely to be

considerations. In his book Soviet Strategy at the Crossroads, (Cambridge: Harvard University Press, 1964), Thomas W. Wolfe outlined the struggle between the "modernists" and the "traditionalists" during the latter phase of Khrushchev's leadership. These debates were not purely intraservice, but cut across institutional lines to include such subjects as the size of the armed forces, the nature of the initial period of a war, the length of a war, the best military strategy for dealing with the United States, the possibility of the escalation of small wars, and the proper role of the military in the formulation of defense policy and strategy. In arguing these subjects, the various services attempted to enhance their future roles or to solidify existing functions which they may have perceived as being diminished in the future. In general, the temporary resolution of these debates during the Khrushchev period enhanced the position of the Strategic Rocket Forces, primarily at the expense of the Theater Forces. As brilliantly pointed out by John Erickson in his recent book Soviet Military Power, (London: The Royal United Services Institute, 1971), the period following the ouster of Khrushchev has been characterized by an evolution of this debate. The major changes have involved the magnitude of the military effort required to implement Soviet goals. Intraservice aspects have developed over the general movement away from Khrushchev's "nuclear fetishism" to more balanced forces. Coincident with the ongoing emphasis on strategic forces, additional improvements have been made to conventional or general purpose forces. The period of general across-the-board improvements has tended to dull intraservice rivalries. Erickson has divided the 1965-71 military debate into discussions of preferences and alternatives before the attainment of rough parity with the United States and the subsequent exploration of the strategic implications of such parity.

opposed. It is noteworthy that no Soviet military writer has endorsed the conduct of strategic arms limitation negotiations, even by inference. Coincident with arguments that Soviet military policy should aim at the attainment of superiority and that Lenin's assertion that imperialism would continue to seek the military destruction of the Soviet Union until the worldwide triumph of communism were still valid, military writers had questioned the utility of arms limitation agreements to insure peace during 1968 and 1969. Although no evidence of an intramilitary split was present, it seems likely to assume that those elements most directly associated with strategic weapons, the Strategic Rocket Forces and the Air Defense Forces, were most opposed to the prospective talks. Those elements not directly linked to such weapons, the Theater Forces and the Navy (with the exception of the Submarine Force), could have been expected to profit from a potential reallocation of defense funds subsequent to the limitation of strategic weapons. However, at least overtly, these elements did not articulate this interest. With respect to antimissile systems, the internal perspectives of 1967¹⁵⁴ seemed to have continued into this period.

Those Party and Government officials who are professionally connected with the conduct of foreign policy could have been expected to favor negotiations as an opportunity

154. See above, pp. 107-113.

to probe for diplomatic gains. The influence of this group on policy formation is not clear,¹⁵⁵ but it is certainly of minor importance when compared with the military, for example. It is more involved with policy execution than its formation. While there were no doubt members of this elite who opposed the initiation of arms limitation talks, the conduct of an extended high-level dialogue with the United States on these vital issues could be assumed to raise its short-term prestige somewhat. The numerous statements made by Foreign Minister Gromyko in favor of initiating discussions somewhat tied the prestige of this elite to the commencement of negotiations. However, to the extent that growing Soviet strategic forces were perceived to add to

155. A recent addition to this elite has been a group of academic specialists, most notably those associated with the Institute of the U.S.A. of the Soviet Academy of Science under the direction of G. A. Arbatov. Again, the role of the academicians in policy formation is probably minimal, but they have been active and fairly sophisticated analysts of the issues associated with the Strategic Arms Limitation Talks, particularly since early 1970. In addition to Arbatov's 15 April 1969 article cited above (see pp. 253-256), discussions of SALT in the Institute's journal have included an unsigned article entitled "Between Helsinki and Vienna," USA: Economics, Politics, Ideology, January 1970, pp. 60-64; A. G. Aleshin, book review in USA: Economics, Politics, Ideology, February 1970, pp. 55-57; V. V. Larionov, "The Strategic Debates," USA: Economics, Politics, Ideology, March 1970, pp. 20-31; G. A. Trofimenko, "Some Aspects of U.S. Military and Political Strategy," USA: Economics, Politics, Ideology, October 1970, pp. 14-27; editorial entitled "By a Leninist Course," USA: Economics, Politics, Ideology, May 1971, pp. 3-12; and K. M. Georgiyev, "A Step Forward," USA: Economics, Politics, Ideology, July 1971, pp. 54-55.

the diplomatic bargaining power of the Soviet Union, it should have been assumed that those involved in the conduct of foreign policy viewed limiting this growth with some degree of concern.

Although Soviet scientists, notably Sakharov and Kapitsa,¹⁵⁶ had spoken out in opposition to antimissile system deployment and in favor of strategic arms limitation negotiations it did not necessarily follow that the scientific elite as a whole shared these convictions. They may have represented a vocal minority. Other scientists, especially those enjoying the use of better research facilities and working conditions than their counterparts in the civilian sector of the economy, may have opposed diverting resources from the technological area where the Soviet Union had seen its greatest success in competing with the United States.¹⁵⁷ Of particular concern to such a group would have been any agreements which would limit Soviet progress in areas where the United States held a technological lead, such as multiple warheads, computer technology, and miniaturization of electronics components. If this hypothesis is correct,

156. See above, pp. 180-182 and p. 289, respectively.

157. Thomas W. Wolfe, "Soviet Interests in SALT: Political, Economic, Bureaucratic and Strategic Contributions and Impediments to Arms Control," presented before the Fifth International Arms Control Symposium, Philadelphia, Pennsylvania, 15 October 1971, p. 21. Wolfe's analysis of the Soviet bureaucratic perceptions of the SALT as of mid-1971 appears on pp. 13-30.

limitation of antimissile defenses might be viewed as preserving a perceived Soviet advantage, particularly with regard to operational experience with a deployed system.

The numerical strategic balance in late 1969 showed the Soviet Union to possess about 1175 intercontinental ballistic missiles to 1054 for the United States.¹⁵⁸ The former United States numerical superiority in this field had ended in mid-1969. Of these, 975 Soviet missiles were the more modern SS-9, SS-11, and SS-13. The remaining 200 were the older SS-7 and SS-8 models deployed in the period from 1958 to 1964. The United States inventory was composed of 1000 solid-fueled Minuteman I and II, with the remainder being the liquid-fueled Titan II. By both quantitative and qualitative standards, the Soviet Union had attained a general parity in this field with deployment continuing. The United States had retained its advantage in submarine-launched ballistic missiles with 656 launchers to about 190 for the Soviet Union. However, the deployment of the Soviet "Yankee" class nuclear-powered ballistic missile submarine had begun in 1969 and construction of additional units of this class was continuing. Although the construction of additional "Galosh" antimissile defense

158. Figures cited were extrapolated from The Military Balance 1971-72, (London: The International Institute for Strategic Studies, 1971), p. 56. See Appendix B for a graphical presentation of offensive missile force levels from 1960-71. Annual rate of change in these force levels is shown on p. 109 above.

sites around Moscow had apparently been suspended in mid-1968, improvements in the supporting radars and research and development efforts at Sary Shagan had continued. The projected initial deployment date for Phase I of the Safeguard system remained 1973 while developmental testing of system components was being conducted at Kwajalein. While both sides were testing multiple warhead systems, the United States was seen to be several years ahead in this field. No initial deployment date had been established.

As the United States and the Soviet Union prepared to begin the discussions, their mutual perceptions of the strategic balance and its trends beyond simple numerical comparisons were of major importance. From the Soviet perspective, the fact that United States antimissile defenses would not be operational until 1973 provided some margin for response if desired. Options available to the Soviet Union included increased numbers of offensive missile launchers, development of multiple warheads for existing launchers, the adoption of a targeting plan which avoided attacking the defended Minuteman sites and concentrated on more vulnerable targets, expansion of the Moscow antimissile defense system to include other areas of the Soviet Union, or a combination of these actions. Although it is not possible to discern changes in targeting plans, the first two options have apparently been employed. It is also not possible to determine what effect the Safeguard deployment decision had on these actions. Deployment

rates do not appear to have been altered. Previously determined force level goals, bureaucratic inertia, the apparent imperative to employ advanced technology as soon as it is feasible, and the desire to maintain established programs in the event of the failure of negotiations could have been larger factors. As will be argued in the following chapter, a decision to seek strategic superiority could have overridden all of these considerations. The effect of Soviet antimissile defenses on United States perceptions and weapons acquisition policies declined. The growth of Soviet offensive forces was the primary cause of concern. Although antimissile testing was being evaluated as closely as was possible and the Moscow system deployment monitored, these developments were seen to have less importance than they had in earlier periods. To a large extent, this attitude resulted from United States confidence in the ability of its offensive missiles to penetrate Soviet defenses, particularly when fitted with multiple independently-targeted reentry vehicles (MIRV) then in an advanced phase of testing.

Broader trends discernable in United States policy and developments during this period which influenced the anti-missile defense dialogue with the Soviet Union reflected the fact that the domestic debate on this issue had become increasingly divorced from missile defense issues and converted into a confrontation on overall arms policy and programs. The conviction of the validity of the phenomenon of

action-reaction in assessing force interactions, which had prevailed particularly during the tenure of Robert McNamara as Secretary of Defense, was subjected to increased tentative skepticism. The strength and pervasiveness of this conviction lay at the root of much of the opposition to antimissile defense deployment. While the Nixon Administration avoided a direct challenge to this contention, its advocacy of the Safeguard system represented a growing reluctance not to respond positively to the growth of Soviet strategic forces. Implicit in its actions was a suspicion that United States restraint in its weapons programs would not produce similar actions by the Soviet Union.

Chapter 6

Conclusions

United States strategic thought, force postures, and armaments dialogue during the decade of the 1960's were dominated by Robert S. McNamara, who served as Secretary of Defense from January 1961 to February 1968. His analysis of these factors was heavily influenced by the development of deterrence theory which had evolved late in the previous decade and was seen to have proven itself during the Cuban Missile Crisis of October 1962. The wide acceptance of this theory in the United States during the decade of the 1960's was a result of the logic inherent in its premises, coupled with Secretary McNamara's skillful implementation, persistent advocacy, and strong conviction that it represented the best approach to avoiding a nuclear war between the United States and the Soviet Union. A conviction that nothing short of a nearly perfect defensive system could provide adequate protection for the nation's population and industrial centers against a determined, massive attack by a major nuclear power was the basis for deterrence theory. Given this conviction, the best way to avoid the destruction of the nation was seen to be procurement and deployment of offensive forces adequate to deter a potential opponent from initiating an attack by creating a perception on his part that an attack on the United States would result in his society being destroyed in retaliation.

Two basic force postures were seen to be able to dissuade a potential opponent from attacking the United States: the possession of offensive forces which could be launched on receipt of warning that an attack was imminent or in progress or the possession of forces which could survive a massive attack and then be launched in retaliation for that attack. The first force posture was rejected on the grounds that it could result in a strategic exchange through miscalculation or ambiguous indications of impending attack. The second option required more expensive, relatively invulnerable forces in the form of constantly airborne bombers armed with nuclear weapons; protected, quick reaction land-based missiles; and missile-armed, nuclear-powered, ballistic missile-launching submarines at sea in conditions of readiness to launch retaliatory strikes after evidence of attack was unmistakable. Such forces were termed to provide "assured destruction" and were so named. The attainment of mutually perceived "assured destruction" force postures by both superpowers was seen to provide the highest probability that a nuclear war would not take place by the deterrence theoreticians. They denied the utility and the possibility of attainment of a credible first strike capability by the United States against the Soviet Union. The denial of first strike intentions has always been a feature of United States statements concerning its nuclear policy, but its force postures have included considerable first strike capability in the form of a large numerical superiority in delivery vehicles

or highly accurate weapons systems. This unasserted first strike capability was permitted to evaporate during the latter half of the decade of the 1960's.

Missions traditionally assigned to defensive forces, those of protecting against an actual attack after its inception, were termed "damage limitation." Forces to accomplish this mission included antiaircraft and antimissile defense systems. Additionally, weapons systems designed to destroy the offensive weapons of a potential enemy before they could be launched were termed "damage limiting." Apparently convinced that a "damage limiting" counterforce capability was not attainable against the Soviet Union, United States force developments in the 1960's stressed "assured destruction" capabilities.¹ Accordingly, forces with "damage limiting" capability were pejoratively termed "destabilizing." Similarly pejorative were the images of "rationality" and "irrationality" ascribed to those who did or did not accept this analysis. For example, implicit in Secretary McNamara's restrained advocacy of the Sentinel antimissile defense

1. Trends in force developments toward more numerous low yield warheads for offensive weapons systems (from about 1-2 megaton warheads for Minuteman I and II intercontinental ballistic missiles to about 200 kilotons for Minuteman III multiple warheads and from about 800 kiloton warheads for Polaris A2 to 200 kilotons for Polaris A3 to 50 kilotons for each Poseidon multiple warhead) and the apparent reluctance of the United States to deploy antimissile defense systems were symptomatic of this apparent conviction. Capabilities cited above are tabulated in The Military Balance 1971-72, (London: The International Institute for Strategic Studies, 1971), p. 57.

system in September 1967 was the contention that the Chinese were "irrational." As subsequent events have shown, Chinese actions with respect to nuclear weapons have proven to be highly "rational." Although they have persistently invoked the image of nuclear weapons as a "paper tiger," they have carefully avoided confrontations where their nuclear inferiority could work against them. Additionally, they have avoided making claims based on their developing nuclear capability, presumably to avoid stimulating arms race pressures in those nations which view the Chinese as potential opponents. Evidence to this effect was available in 1967, but Secretary McNamara and others who based their arguments for United States antimissile defense system deployment on anti-Chinese grounds generally employed this rationale as a pretext rather than a cause for their advocacy.

Also implicit in the argument that force postures which reflected "irrationality" by introducing elements of instability into the perceived strategic balance between the United States and the Soviet Union was the contention that manipulation of uncertainties on the part of potential opponents lacked political utility. Since mutual force estimates and perceptions are largely determined by probabilities, the widening of the range of those probabilities may result in differing estimates of existing or projected "strategic reality." An increased range of uncertainty provides a somewhat greater opportunity for political and

military activity at lower levels of confrontation with the strategic balance of forces in the background. Although the United States generally denied the utility of this principle during the decade in question, it did not automatically follow that the Soviet Union shared this conviction or viewed it as "irrational." Seen from the Soviet Union's perspective, the possession of antimissile defenses and weapons systems with some degree of first strike capability might seem to be highly "rational" when coupled with the will to manipulate the created uncertainties. If combined with local conventional superiority and/or geographical proximity to the location of a confrontation, such uncertainties might be expected to enhance the attainment of political objectives without the Soviet Union having to resort to armed conflict.² However, with respect to antimissile defense systems, the apparent mutual perception that existing offensive forces in the possession of either side can penetrate existing or projected defenses made the utility of such systems in this context suspect.

An important adjunct to United States adherence to an "assured destruction" strategy during this period was the belief that an "action-reaction" model of strategic force

2. Uri Ra'anan, "Soviet Global Politics and the Middle East," Naval War College Review, September 1971, p. 21. See also the forthcoming pamphlet The Deterioration of the U.S.-Soviet Strategic Balance: Some Political Implications, by the same author to be presented to the Senate Committee on Governmental Operations, Subcommittee on National Security, in February 1972.

developments was valid. In addition to the traditionally accepted concept that one's own force developments and deployments could prompt reciprocal actions by potential adversaries either in the form of offensive or defensive weapons systems, self-restraint was seen to influence the behavior of potential adversaries importantly. Growing United States commitment to the perceived wisdom of deterrence theory and the development of "assured destruction" rather than "damage limiting" forces led to the belief that the Soviet Union would also adhere to these concepts if properly "educated." This "education program" was reflected in United States force posture developments, the published rationales for those developments, and direct communication with the Soviet leadership. Secretary McNamara's impassioned discussion with Soviet Premier Alexei Kosygin at the Glassboro meetings in June 1967 was an example of the latter approach. While it may be argued that this program had some influence on Soviet antimissile defense system deployment decisions, particularly in the latter half of the decade of the 1960's, the notion that self-restraint would be reciprocated is subject to question. The apparent failure of the Soviet Union to suspend or reduce the rate of construction of offensive missile sites after it had attained numerical parity with the United States in mid-1969 indicated this program had not been completely successful. A similar lack of restraint in the construction of ballistic missile-launching submarines would further expose the

validity of this belief to question.³ Given the conviction and pervasiveness of Secretary McNamara's analysis during the decade of the 1960's, it seems reasonable to assume that the Soviet leadership took United States self-restraint for granted. While the expressed concern for the Soviet strategic buildup on the part of the Nixon Administration may have dulled this perception somewhat, the difficulty experienced by President Nixon and Secretary Laird in securing funds for the deployment of the Safeguard antimissile defense system and the development of other advanced strategic weapons systems is indicative of the political strength of Secretary McNamara's analysis and policies.

The perceived political utility of antimissile defense systems declined during the decade of the 1960's. During the early period from 1960 to 1964, such systems were considered to be the next important technological step in strategic force posture developments. Both the United States and the Soviet Union were conducting extensive programs of research and development in this field. An early Soviet deployment around Leningrad was accompanied by a program of capability claims apparently intended to enhance its political utility. While this program reflected the style of Nikita Khrushchev to some extent, it represented

3. At the time of the completion of this paper, January 1972, the number of "Yankee" class submarines in an operational status or under construction was nearing numerical parity with the United States force of 41 Polaris/Poseidon submarines.

a continuation of the politics which were particularly evident in the Soviet manipulation of international perceptions which had been somewhat successful following the launching of the Sputniks in 1967. The relatively more restrained claims for antimissile defense systems which characterized the remainder of the decade reflected both the style of the Brezhnev-Kosygin regime and a perception that the creation of an "Antimissile Gap" would possess diminished political utility. Several factors contributed to this perception. First was an apparent realization that previous Soviet attempts to exploit real or alleged strategic capability advantages had only produced short-term results which were then transformed into greater strategic inferiority than had existed previously. Three Soviet actions related to strategic forces during the period following World War II had produced such results: the detonation of an atomic device in 1949, the long-range bomber demonstration at the 1955 Tushino Air Show, and the launching of Sputnik in 1957. The atomic test, which had taken place much earlier than had been predicted by Western analysts, was a major factor in the United States decision to proceed with the development of thermonuclear weapons. The "Bomber Gap," which grew out of the demonstration at Tushino, resulted in an increase in the numerical strength of the Strategic Air Command during the latter half of the 1950's. Finally, the United States missile deployments, which were stimulated by the launching of Sputnik, resulted

in the marked Soviet strategic inferiority which influenced the outcome of the Cuban Missile Crisis. A second factor was the drastic improvement in strategic intelligence collection capability which had resulted from technological developments such as reconnaissance satellites. Since antimissile defense systems require large supporting radar installations in addition to extensive missile launch complexes, detection in the early phases of their construction can be assumed. Additionally, satellites can monitor the numerical strength of the launch complexes. The key remaining uncertainty in intelligence estimates of antimissile defense capabilities is the quality of the defenses. These uncertainties can be kept within reasonable limits by conducting research and development activities on a nation's own defensive systems. It should be noted that qualitative claims by either side are influenced by existing bodies of opinion in each society who contend that antimissile systems are ineffective in the major power confrontation context. Although articulation of this belief in the case of the Soviet Union has been limited to expressions by the two scientists Sakharov and Kapitsa, a trend toward increased "antimissile realism" was also apparent in statements by military leaders during the period after 1967. In the United States, this opinion is widespread as evidenced by statements of both those who opposed and supported deployment of Sentinel and Safeguard. A final factor is the difficulty of staging a convincing demonstration of antimissile capability

short of an actual nuclear exchange. While it is a relatively simple task for either the United States or the Soviet Union to intercept an incoming reentry vehicle under test conditions, system performance under conditions of saturation, penetration aids deception, and in an atmosphere of previous nuclear detonations remains a major unverifiable uncertainty.

Two factors which have characterized Soviet force posture and its development have somewhat diminished in their applicability under the Brezhnev-Kosygin regime: defensive emphasis and attempts to technologically "leap frog" the United States. Most Western analysts assessing the Soviet antimissile defense deployment have depicted it as a logical continuation of a traditional predilection for strategic defense. While this emphasis has deep roots in the Russian experience predating the Soviet period, it was particularly evident during the twenty years following World War II. It has been estimated that Soviet expenditures on antiaircraft defenses during this period were two and one-half times those of the United States.⁴ However, despite these expenditures on interceptor aircraft and antiaircraft guns and missiles, these weapons generally lagged behind United States offensive capabilities and tactics. For

4. U.S., Congress, House of Representatives, Subcommittee on the Department of Defense of the Committee on Appropriations, Military Procurement Authorizations for Fiscal Year 1968, 90th Congress, First Session, (Washington, 1967) p. 303.

example, early Soviet interceptor aircraft were unable to operate at night or in adverse weather conditions when United States bombers had that capability.⁵ Later, when the SA-2 surface-to-air missile system was deployed to provide defense against high altitude attack in all weather conditions, United States bomber tactics had already been changed to stress low level penetration and attack. In both cases, the Soviet defensive efforts had been tardy and qualitatively inferior to United States offensive measures. While the deployments of the "Galosh" antimissile defense system around Moscow and the "Tallinn Line" (which is now considered to be primarily intended to counter high performance aircraft and the cruise missiles launched by such aircraft) are indicative of a continuation of this defensive emphasis, the failure of the Soviets to substantially expand the Moscow antimissile defense system during the late 1960's may represent a reduction in its perceived importance. As will be outlined below, such an interpretation would fit into a strategy which other force posture developments seems to indicate.⁶ It is possible to argue that recent Soviet strategic force developments, notably in the form of the large SS-9 missile with its potential counter-force capability, represent a growing penchant for offensive

5. Supersonic all-weather interceptors did not enter the Air Defense Forces inventory until 1959 with the introduction of the Su-9 (Fishpot).

6. See below, pp. 321-323.

forces rather than defense, despite the pressure of traditions. However, since the SS-9 is generally regarded as at least a potential counterforce weapon, it may be viewed as a continuation of the traditional defensive emphasis in that it reduces the strength of an opponent's overall offensive capability through counterforce strikes. Interestingly, an August 1970 article by P. G. Gudarin, Chief of the Amur District Civil Defense Headquarters, referred to the employment of counterforce strikes as a defensive measure:

The most effective means of defending the country's population are effective actions aimed at destroying the enemy's offensive weapons both in the air and on the ground at their bases. Rocket troops - the new type of armed forces - play a major role in the destruction of the enemy's offensive weapons.⁷

Soviet attempts to technologically "leap frog" the United States also characterized the twenty year period after World War II. These attempts exploited the secrecy inherent in a closed society and the ability of a command economy to allocate resources directly to the solution of a particular technical problem. There is some indirect evidence that the first such attempt was the rapid Soviet transition from the atomic to the hydrogen bomb in the period from 1949 to 1953. The most notable success was the virtual bypassing of the

7. P. G. Gudarin, "Modern Offensive Means of the Imperialist Armies," Blagoreshchensk Domestic Service in Russian, 1045 GMP, 5 August 1970.

intercontinental bomber to concentrate research on missiles, aided by the particularly effective demonstration at the 1955 Tushino Air Show which contributed to the "Bomber Gap" of the mid-1950's. This performance was repeated through the manipulation of Sputnik and the "Missile Gap" of the late 1950's. Again in this case, the Soviet Union did not translate a short-term technological advantage into military hardware on a large scale. It now appears that large scale military procurement was postponed until second-generation intercontinental ballistic missiles were developed and proof tested in late 1961. The antimissile defense deployments during the period from 1962 to 1968 seemed to repeat this pattern. Initial deployment of what probably were technologically primitive systems was made in 1962 and 1963, accompanied by a moderate program of public statements to probe Western reaction while research and development continued on more sophisticated systems and components. Western reports indicated that the Moscow deployments (which were essentially completed in 1968) were begun, halted, and then resumed in early 1966.⁸ Breaking with the former pattern, reversion to continued research and development rather than extensive deployment followed mid-1968 and has apparently continued to the present time, January 1972. This decision, which probably reflected Soviet domestic political goals, priorities, and perceptions of international

8. The New York Times, 8 December 1966, p. 1.

factors, was apparently made in early 1967 as has been outlined above.⁹ Viewed in conjunction with the apparant reduced emphasis on strategic defense, attempts at technological leaps have a reduced role in an overall Soviet strategy which seems to favor more solidly based force developments. Additionally, improvements in strategic intelligence collection capabilities have degraded the probability that a technological leap can take place without its being detected in its early phases.

Numerous political analysts have described the political confrontation which has evolved between the United States and the Soviet Union as a "limited adversary" relationship. In the context of the 1960's, both superpowers were seen to have mutual interests in avoiding nuclear war, sustaining their client states when threatened by clients of the opposing superpower, and maintaining their political and military interests where they were already established. While this analysis recognized the relatively greater dynamism of Soviet aspirations, it tended to assume that this dynamism was a transitory phenomenon which would subside with the passage of time as domestic demands for resources and the attention of the Soviet leadership became more acute. To date, this dynamism has not subsided. In general terms, the trend during the decade in question has been for the United States to see "limited" as the operative word in

9. See above, pp. 106-113.

describing this relationship while the Soviet Union has focused on the "adversary" portion. Although the United States has acted on the premise that its restraint would ultimately induce the Soviet Union to reciprocate by imposing parallel restraint on its policies and actions, the Soviet Union appears to have taken United States restraint for granted and viewed it as an indication of diminished American will to act as an adversary. It is even possible to argue that United States perceptions of restraint have been interpreted as duplicity by the Soviet leadership. For example, United States deployment of antimissile defense systems and multiple warhead offensive missiles would seem to fulfill an adversary perspective, but when coupled with professed eagerness to negotiate on strategic arms limitation could have been seen as an attempt to diminish the vigilance of the Soviet Union while the United States attempted to reattain strategic superiority. On the other hand, in reviewing Soviet moves toward arms control of antimissile defense systems, they have seemed to follow United States actions which could be described as "hard" bargaining moves. The professed willingness on the part of the Soviets to begin negotiations in both 1968 and 1969 followed key Senate votes sustaining the Administration's deployment decisions. On a highly speculative basis, it can be argued that the Soviet leadership is more willing to deal with the United States when its behavior conforms to the image of an adversary than when it takes a "softer" line. The failure of an

adversary to act in keeping with this image may be expected to be viewed with suspicion rather than gratitude by the Soviet Union.

Viewing Soviet force posture developments which have evolved during the tenure of the Brezhnev-Kosygin regime, it is possible to outline a possible Soviet grand strategy. Broadly speaking, these developments have included increased land-based strategic offensive forces whose numbers exceed those of the United States and which are perceived to possess a significant counterforce capability; near numerical parity in second strike, relatively invulnerable submarine-launched missiles; major improvements in the mobility of Theater Forces, including naval infantry (presumably similar in its mission to the United States Marine Corps); naval forces capable of operating for extended periods in areas of potential international conflict such as the Mediterranean Sea and the Indian Ocean; an expanded merchant marine; and improved air superiority (fighter) aircraft and antiaircraft surface-to-air missiles apparently available to selected client states faced with threatening air forces. A hypothetical grand strategy indicated by these force posture developments would involve the stalemate of United States strategic forces allowing for the increased utility of the more mobile conventional forces in areas of conflict more remote from the Soviet Union than contiguous states where Soviet forces have traditionally been influential. Thomas Wolfe has pointed out that a persistent theme of Soviet statements on arms

control and disarmament questions has involved pledges of "no first use" of nuclear weapons.¹⁰ Such a pledge by the United States would essentially reduce the credibility of potential political threats based upon its formerly superior strategic forces. Having failed to secure such a pledge through negotiations, the Soviet strategic force buildup represents the virtual attainment of such an agreement through force posture developments and their effects on mutually held perceptions by both sides. In the absence of the possession of credible first strike capabilities for United States strategic offensive forces, any threat of the employment of its strategic forces by the United States would imply a willingness to risk destruction of its cities in return for similar destruction of Soviet cities. Some analysts, notably Donald G. Brennan, have termed such a situation as "mutual assured destruction (MAD)" and have stressed the lack of credibility of such threats.¹¹ Perceived United States reluctance to employ its strategic forces would be enhanced by the counterforce capabilities

10. Thomas W. Wolfe, "Soviet Interests in SALT: Political, Economic, Bureaucratic and Strategic Contributions and Impediments to Arms Control," unpublished monograph presented to the Fifth International Arms Control Symposium, Philadelphia, Pennsylvania, 15 October 1971, pp. 31-40. For the text of a 1968 Soviet Government memorandum concerning urgent disarmament steps which listed a "no first use" pledge first, see Tass International Service in English, 1810 GMT, 1 July 1968.

11. Donald G. Brennan, "The Case for Missile Defense," Foreign Affairs, April 1969, p. 443.

of the Strategic Rocket Forces. Possession of such forces would be expected to raise the political threshold of escalation to general nuclear war. The role of antimissile defense systems in such a grand strategy would be similar to that of a counterforce capability at greater cost. Put bluntly, the marginal utility of antimissile defense systems in such a strategy dictates expenditures on other types of forces. Extensive research and development activity in areas related to antimissile defense systems would reduce the risk of such a force posture, particularly in the short-term when the potential adversary does not possess such defenses. The generally perceived lack of willingness on the part of the United States to engage in conventional conflict in remote areas in the aftermath of its experience in Vietnam enhances the credibility of such a strategy and the potential political influence of Soviet conventional forces in those areas.

"Passive" defense measures, known generally as civil defense, have received additional Soviet emphasis since 1965 when the program was recentralized under the leadership of Marshal Chuikov. This recentralization has been accompanied by an extensive and ongoing publicity program, abetted by compulsory and universal training beginning with classroom training of school children and continuing through further education at most places of employment. The training includes integrated disaster programs in nuclear attack, post-attack radiation hazards, bacterial and chemical attack,

and natural disasters, such as floods. Included are fairly realistic exercises in rescue and repair of the devastated areas. Collective farm exercises, for example, have encompassed protection of livestock. Additional elements in the civil defense program include apparent plans for the evacuation of urban populations to rural areas, with cadre workers remaining in the cities to use existing shelters; plans for rail and road evacuation with established timetables for assembly at collection points; and lists of items which families are to bring with them in the event of mass evacuation. One author has further hypothesized that an alternate command structure has been established in the Volga Military District in the event of a nuclear disaster to Moscow.¹² United States civil defense preparations have been largely confined to paper studies and the designation of urban structures to serve as shelters. With the exception of a surge of public interest in home civil defense procedures which included a boom in the construction and marketing of home shelters in the early 1960's, United States public interest in civil defense has remained passive. No training program comparable to that of the Soviet Union has been instituted.

As the decade of the 1960's progressed, antimissile defense systems generally acquired functions which were

12. John Erickson, Soviet Military Power, (London: The Royal United Services Institute, 1971), p. 48.

more symbolic than military. Initially, the belief that they represented the most technically sophisticated weapons system in existence made their potential psychological influence on the perceptions of technological superiority held by third powers seem valuable. While this factor was not normally discussed, it nevertheless was a subtlety which influenced decisions by both the United States and the Soviet Union. However, as the decade ended, the development of multiple warhead offensive systems somewhat usurped this function. In the context of the strategic dialogue between the United States and the Soviet Union, antimissile defense system deployments also fulfilled symbolic functions. The location of the Soviet defenses had such function, although other factors were probably more important. The Nixon Administration's emphasis on defense of strategic retaliatory forces before providing a thin area defense of population and industrial centers was symbolic in that it was seen to enhance the credibility of the United States' proclaimed "assured destruction" strategy.

In the two years of negotiations at the Strategic Arms Limitation Talks (SALT) which have followed the period of this paper, a widely held perception that some limitation of antimissile defense systems would be an element of a first stage of agreement has developed. This perception received official sanction in a statement made jointly by the United States and the Soviet Union on 20 May 1971:

The Governments of the United States and the Soviet Union, after reviewing the course of their talks on the limitation of strategic armaments, have agreed to concentrate this year on working out an agreement for the limitation of the deployment of antiballistic missile systems - ABM's.

They have also agreed that together with concluding an agreement to limit ABM's, they will agree on certain measures with respect to the limitation of offensive strategic weapons.

The two sides are taking this course in the conviction that it will create more favorable conditions for future negotiations to limit all strategic arms.

These negotiations will be actively pursued.¹³

The mutual perception of the diminished political utility of antimissile defense systems with regard to the grand strategies apparently adopted by the United States and the Soviet Union has led to a situation where the limitation of such systems is possible. In a sense, this possibility reflects the symbolic function of antimissile defense systems. Perceived to possess marginal political and military advantages at great financial cost, they represent an area where some agreement can be reached with relatively minimal political cost.

13. Tass International Service in English, 1853 GMT, 20 May 1971 and The New York Times, 21 May 1971, p. 2. The full text of the announcement is quoted above.

Appendix A

Soviet Antimissile Defense Formulations,

1960 to 1969

Soviet antimissile defense formulations published during the period from January 1960 to November 1969 have included those listed below. They are arranged in chronological order. The author and his military position, when available and if applicable, follow the quotation. Pages listed are crossreferences to the text of the preceding paper.

October 1960 - "So far, there is no practical way of repulsing a nuclear rocket attack." Major General Talensky, military theoretician on the Soviet General Staff, p. 27.

November 1960 - We have rockets that can destroy "offensive pilotless devices at great altitudes." Marshal Kazakov, Commander of Artillery and Missile Forces, p. 28.

September 1961 - "We remain very satisfied with the work of those who produced the means of combatting rockets." Premier Khrushchev, p. 32.

October 1961 - "I must report to you that the problem of destroying missiles in flight has been successfully solved." Marshal Malinovsky, Defense Minister, p. 33.

May 1962 - "We have successfully solved the problem of destroying enemy missiles in flight." Colonel Sidelnikov, p. 33.

July 1962 - "The Soviet Union was forced to develop ...anti-missile rockets." Premier Khrushchev, p. 35.

"Our rocket hits a fly in outer space." Premier Khrushchev, p. 36.

August 1962 - In regard to antimissile defenses, "in principle, a technical solution to this problem has been found." Marshal Sokolovsky, former Chief of the Soviet General Staff, p. 39.

October 1962 - "We have successfully solved the problem of destroying enemy missiles in flight." Marshal Malinovsky, Defense Minister, p. 36.

December 1962 - "The Soviet Union has proved her superiority over the United States in the field of antimissile defenses." Marshal Biryuzov, Commander of the Strategic Rocket Forces, p. 37.

February 1963 - "The problem of destroying enemy rockets in flight has been successfully solved." Marshal Biryuzov, Commander of the Strategic Rocket Forces, p. 38.

November 1963 - The rocket displayed in the 7 November parade is capable of destroying "the enemy's rockets in the air." Marshal Biryuzov, Commander of the Strategic Rocket Forces, p. 42.

"The existing systems of antiaircraft and antimissile defense cannot withstand nuclear rocket strikes. And no matter how strong this defense may be, our strategic rockets will inevitably reach their selected targets." Marshal Krylov, Commander of the Strategic Rocket Forces (Marshal Krylov replaced Marshal Biryuzov after the latter was killed in a mid-November aircraft accident), p. 43.

January 1964 - "The combat possibilities of the PVO forces

permit the destruction of practically all modern means of strategic attack." Marshal Sudets, Commander of the Air Defense Forces (PVO), p. 44.

March 1964 - "We have successfully solved the problem of creating a reliable defense, not only against aircraft, but also against missiles." Marshal Sudets, Commander of the Air Defense Forces, p. 44.

August 1964 - "The constantly growing possibilities of anti-missile defense must be taken into account." Marshal Sokolovsky, former Chief of the General Staff, p. 46.

October 1964 - "Antimissile systems are defensive weapons in the full sense of the word." Major General Talensky, military theoretician on the General Staff, p. 47.

November 1964 - "It should be added that in our country the problem of combatting enemy rockets in flight has been successfully solved and effective methods have been found for destroying any weapons of air and space attack by an aggressor." Marshal Krylov, Commander of the Strategic Rocket Forces, p. 51.

February 1965 - "The Soviet Union has solved the complex and extremely important problem of destroying any enemy rocket in flight." Marshal Malinovsky, Defense Minister, p. 53.

May 1965 - Rocket displayed in the military parade is an "antimissile missile." Pravda, p. 54.

October 1965 - Antimissile defenses "have become a reliable shield against nuclear attack." Marshal Malinovsky,

Defense Minister, p. 56.

February 1966 - "We have everything necessary for successfully combatting enemy missiles at distant approaches to protected objectives." Marshal Malinovsky, Defense Minister, p. 60. This statement was repeated by General Batitsky, First Deputy Chief of the General Staff and subsequently Commander of the Air Defense Forces, p. 60.

April 1966 - "Soviet air defense means reliably ensure the destruction of any aircraft and many rockets of the enemy." Marshal Malinovsky, Defense Minister, p. 61. "Models of our rockets ...are capable of destroying enemy means of air and space attack at any altitude and at great distances from protected areas and objectives." Marshal Sudets, Commander of the Air Defense Forces, p. 62.

May 1966 - "Our antiaircraft troops are developed to the point where they can guarantee the destruction of any type of aircraft, and many missiles, of an enemy." General Ivanov, Commandant of the Higher Military Academy of the General Staff, p. 66.

"At the present time, the air defense weapons insure the reliable destruction of any aircraft and many missiles of the enemy." Marshal Sudets, Commander of the Air Defense Forces, p. 68.

January 1967 - "The Air Defense Forces are capable of reliably protecting the country's territory against an aerial

attack of the enemy." Marshal Malinovsky, Defense Minister, p. 89.

February 1967 - The Air Defense Forces "can reliably protect the country's territory from an enemy air attack." General Batitsky, Commander of the Air Defense Forces, p. 104.

"Detecting enemy missiles in time and destroying them in flight is no problem." General Kurochkin, Commandant of the Frunze Military Academy, p. 104.

"Modern means of antiaircraft defense assure the destruction of any aircraft and many kinds of rockets." Marshal Grechko, First Deputy Defense Minister, p. 104.

"Unfortunately there are no means yet that would guarantee the complete security of our cities and most important objectives from the blows of the enemy's weapons of mass destruction." Marshal Chuikov, Commander of the Civil Defense Forces, p. 105.

"In recent years a realistic possibility has arisen for us effectively carrying out antirocket defense." Marshal Bagramyan, Deputy Defense Minister, p. 105.

"The Soviet Union has solved the complicated and highly important problem of destroying enemy missiles in flight." Marshal Kazakov, Commander of artillery and Missile Forces, p. 106.

"Our antiaircraft defenses have efficient missile intercepting systems." Marshal Sokolovsky, former

Chief of the General Staff, p. 105.

June 1967 - "...the best means for defending our state from nuclear attack are our powerful rocket troops and our antimissile missiles and interceptors, which are designed to prevent enemy nuclear missiles from penetrating our air space. They will be destroyed even before they approach our borders." Marshal Chuikov, Commander of the Civil Defense Forces, p. 126.

July and September 1967 - "The enormous speed, especially when approaching a target, and the various forms of trajectories make the [strategic] rockets invulnerable in flight, especially when used on a mass scale." Marshal Krylov, Commander of the Strategic Rocket Forces, p. 135.

August 1967 - The Air Defense Forces "are equipped with modern antiaircraft missiles and fighter planes. The high standard of technical equipment of the air defense units ensures their ability to cope with the task of protecting the country from nuclear attacks." Colonel General Lomov, p. 167.

November 1967 - Soviet "antirockets permit the creation of a reliable defense of separate targets and broad regions of the country." Izvestia and Krasnaya Zvezda, p. 155.

"Our antiaircraft troops are capable of destroying enemy mass air and space attack at any altitude and at great distances from the defended objectives." Pravda,

p. 155.

"Among their arms, our country's antiair defenses have accurate interceptor-missiles of enemy nuclear carriers and missiles." Marshal Krylov, Commander of the Strategic Rocket Forces, p. 158.

January 1968 - "The armament of the air defense forces contains complexes of antiaircraft guided missiles capable of destroying practically all modern means of air and space attacks at significant distances from defended targets, at high and low altitudes, and at supersonic flight speeds." General Batitsky, Commander of the Air Defense Forces, p. 163.

February 1968 - "The Air Defense Forces are capable of destroying any aircraft and many missiles of the enemy." Marshal Krylov, Commander of the Strategic Rocket Forces, p. 165.

"We are closely watching the development of rocket technology in the armies of other major countries and we know their present state. We also know the solutions to the problems of antirocket defence." Marshal Krylov, Commander of the Strategic Rocket Forces, p. 166.

"The Air Defense Forces are capable of destroying any aircraft and many missiles of the enemy." Marshal Zakharov, Chief of the General Staff, p. 166.

"The Air Defense Forces have changed beyond recognition. They comprise antiaircraft rocket troops, air

defense aviation, and radiotechnical troops capable of waging a successful struggle against manned and unmanned means of air attack under any conditions and at a considerable distance from defended objectives." Marshal Grechko, Defense Minister, p. 166.

July 1968 - "The Air Defense Forces "have learned to make use of the most modern fighting means and are destroying the enemy at all altitudes and in all maneuvering conditions." Marshal Batitsky, Commander of the Air Defense Forces, p. 183.

November 1968 - "The great speed, with complete automatic control over the flight of the missiles, and some other properties of the weapons make them practically invulnerable to existing systems of enemy missile defense." Marshal Krylov, Commander of the Strategic Rocket Forces, p. 190.

"A main component of our PVO Forces is now the anti-rocket troops, which in cooperation with other branches of the anti-aircraft defense force, reliably defend the Soviet skies from all methods of air attack by an aggressor." Sovetskiy Patriot, p. 190.

February 1969 - "The Party and Government have entrusted the Air Defense Forces with the defense of the fatherland's air frontiers, having created all necessary conditions for fulfilling this responsible task." Marshal Batitsky, Commander of the Air Defense Forces, p. 207.

May 1969 - "The country's air defense forces, which include

antiaircraft missile forces, fighter aircraft, radio-technical and special forces capable of reliably hitting all modern means of the enemy's air attack at great distances from the objectives being defended, at all ranges of altitudes and speeds of flight." Marshal Yakubovskiy, First Deputy Defense Minister, p. 258.

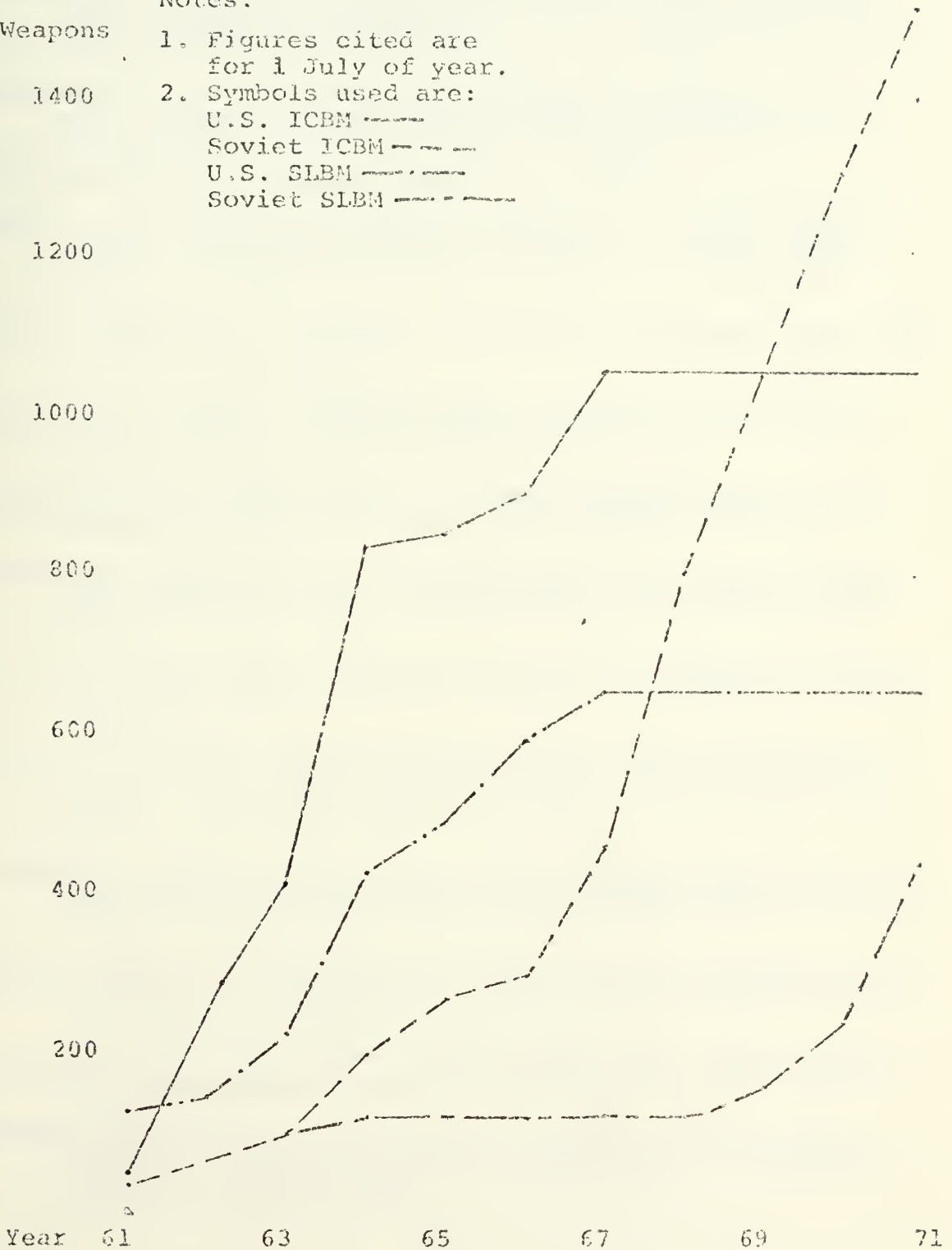
Appendix B

Graph of Deployed Offensive Forces

Number of
Weapons

Notes:

1. Figures cited are for 1 July of year.
2. Symbols used are:
U.S. ICBM ———
Soviet ICBM ———
U.S. SLBM ———
Soviet SLBM ———



Bibliography

- Adams, Benson D., "McNamara's ABM Policy, 1961-67," Orbis, December 1968, pp. 200-225.
- Alexeyev, A., "Nuclear Non-Proliferation Treaty and Security," Mezhdunarodnaya Zhizn' (International Affairs), January 1969, pp. 10-15.
- Armstrong, Richard, "Military-Industrial Complex -- Russian Style," Fortune, August 1969, pp. 85-126.
- Aviation Week and Space Technology, 1960-71.
- Babin, Colonel A., "The Party -- Leader of the USSR Armed Forces," Krasnaya Zvezda (Red Star), 6 April 1967, pp. 1-6.
- Baehm, George A., "Countdown for Nike-X," Fortune, May 1965, pp. 133-137, 192-200.
- Barnett, A. Doak, "A Nuclear China and U.S. Arms Policy," Foreign Affairs, April 1970, pp. 427-442.
- Baryshev, Major General I., "Nuclear Weapons and the PVO," Krasnaya Zvezda (Red Star), 13 November 1963.
- Batitsky, Marshal P. F., "On Guard over Peace and Socialism," Selskaya Zhizn' (Rural Life), 23 February 1969, p. 3.
- _____, "Guardians of the Air Oceans," Izvestia, 21 February 1968, p. 1.
- _____, "Toward the 50th Anniversary of the USSR Armed Forces," Krasnaya Zvezda (Red Star), 28 December 1967, p. 4.
- Belousov, Colonel-Engineer M., "The Offspring of the Monopolies and the Militarists," Za Rubezhom (Life Abroad), October 1969, p. 22.
- Bethe, Hans A., "Hard Point vs. City Defense," Bulletin of the Atomic Scientists, June 1969, pp. 25-26.
- _____, "The ABM, China and the Arms Race," Bulletin of the Atomic Scientists, May 1969, pp. 41-44.
- Bloomfield, Lincoln P., Walter C. Clemens, and Franklyn Griffiths, Khrushchev and the Arms Race, (Cambridge: The M.I.T. Press, 1966).

- Bondarenko, Candidate of Philosophical Sciences Lieutenant Colonel V., "The Contemporary Revolution in Military Affairs and the Combat Readiness of the Armed Forces," Kommunist Vooruzhennykh Sil (Communist of the Armed Forces), 15 December 1968, p. 24.
- Brennan, Donald C., "New Thoughts on Missile Defense," Bulletin of the Atomic Scientists, June 1967, pp. 10-15.
- _____, "Start on Strategic Stabilization," Bulletin of the Atomic Scientists, January 1969, pp. 35-36.
- _____, "The Case for Missile Defense," Foreign Affairs, April 1969, pp. 433-448.
- Brown, Harold, "Security through Limitations," Foreign Affairs, April 1969, pp. 422-432.
- Brown, Neville, Nuclear War, (New York: Praeger, 1965).
- Bull, Hedley, "The Scope of Soviet-American Agreements," Adelphi Papers, no. 65, February 1970.
- Bundy, McGeorge, "To Cap the Volcano," Foreign Affairs, October 1969, pp. 1-20.
- Caldwell, Lawrence T., "Soviet Attitudes to SALT," Adelphi Papers, no. 75, February 1971.
- Center for the Study of Democratic Institutions, Anti-ballistic Missile: Yes or No?, (New York: Hill and Wang, 1968).
- Chayes, Abram and Jerome Wiesner, eds., ABM: An Evaluation of the Decision to Deploy an Anti-Ballistic Missile System, (New York: Signet, 1969).
- Cipka, Pavel, "Light Nuclear 'Umbrella:' The Intentions of the United States in Building an Antimissile Defense System," Bratislava Pravda, 29 September 1967, p. 5.
- Clifford, Clark, Fiscal Year 1970-74 Defense Program and Fiscal Year 1970 Defense Budget, Department of Defense monograph, 15 January 1969.
- Coffey, J. I., "Chinese and BMD," Bulletin of the Atomic Scientists, December 1965, pp. 41-42.
- _____, "Soviet ABM Policy: The Implications for the West," International Affairs, vol. 45, no. 2, pp. 205-222.
- _____, Strategic Power and National Security, (Pittsburgh:

The University of Pittsburgh Press, 1971).

_____, "Strategic Superiority, Deterrence and Arms Control," Orbis, Winter 1970, pp. 991-1007.

_____, "The Anti-ballistic Missile Debate," Foreign Affairs, April 1967, pp. 403-413.

Crane, Robert D., "Soviet Military Policy during the Era of Ballistic Missile Defense," in Denis Dershel, ed., The New Russia, (Dayton: Pflaum Press, 1968), pp. 157-170.

Davis, Paul C., "Sentinel and the Future of SABMIS," Military Review, March 1968, pp. 56-66.

"Defense Capacity of the Soviet Union," unsigned article in Voyennyye Znaniya (Military Knowledge), November 1965.

Dyson, Freeman, "A Case for Missile Defense," Bulletin of the Atomic Scientists, April 1969, pp. 31-33.

_____, "Defense Against Ballistic Missiles," Bulletin of the Atomic Scientists, June 1964, pp. 20-27.

Enthoven, Alain C. and K. Wayne Smith, How Much Is Enough?: Shaping the Defense Program, 1961-1969, (New York: Harper and Row, 1971).

Erickson, John, Soviet Military Power, (London: The Royal United Services Institute, 1971).

_____, "The Fly in Outer Space: The Soviet Union and the Anti-Ballistic Missile," The World Today, vol. 23, no. 3, 1967, pp. 106-114.

Feld, B. T., T. Greenwood, G. W. Rathjens and S. Weinberg, eds., Impact of New Technologies on the Arms Race, (Cambridge and London: The M.I.T. Press, 1971).

Fink, Daniel J., "Strategic Warfare," Science & Technology, October 1968, pp. 54-68.

Foster, William C., "Prospects for Arms Control," Foreign Affairs, April 1969, pp. 413-421.

Gallagher, Matthew P., "The Uneasy Balance: Soviet Attitudes toward the Missile Talks," Interplay, December 1969-January 1970, pp. 21-25.

Garwin, Richard L., and Hans A. Bethe, "Anti-Ballistic

- Missile Systems," Scientific American, March 1968, pp. 21-31.
- Gerasimov, G., "About the ABM," Literaturnaya Gazeta (Literary Gazette), 11 October 1967, pp. 10-13.
- _____, "About the ABM System," Pravda Ukrainy, 23 March 1969, p. 4.
- _____, "Pentagonia, 1969," Mezhdunarodnaia Zhizn' (International Affairs), June 1969, pp. 47-49.
- Gilpatrick, Roswell L., "Our Defense Needs: The Long View," Foreign Affairs, April 1964, pp. 414-430.
- Grechko, Marshal A. A., "Born under Fire," Sovetskiy Voin (Soviet Soldier), February 1968, pp. 3-5.
- Grigoryants, A., and G. Tikhanov, news article in Trud (Trade), 12 August 1969, p. 1.
- Hahn, Walter F., and Alvin J. Cottrell, "Ballistic Missile Defense and Soviet Strategy," Orbis, Summer 1965, pp. 316-337.
- Halperin, Morton H., "Prospects for SALT," American Journal of International Law Proceedings, September 1970, pp. 200-211.
- Hekhuis, Dale J., ed., International Stability, (New York: Wiley, 1964).
- Herzfeld, Charles M., "BMD and National Security," Survival, May 1966, pp. 70-76.
- Hibbs, A. R., "ABM and the Algebra of Uncertainty," Bulletin of the Atomic Scientists, March 1968, pp. 31-33.
- Holloway, David, "Technology, Management and the Soviet Military Establishment," Adelphi Papers, no. 76, April 1971.
- Holst, Johan J., and William Schneider, Jr., eds., Why ABM?: Policy Issues in the Missile Defense Controversy, (New York: Pergamon Press, 1969).
- Horelick, Arnold L., and Myron Rush, Strategic Power and Soviet Foreign Policy, (Chicago: The University of Chicago Press, 1966).
- Horn, O. H., and J. Ponturo, "Stable Deterrence Proposals," Orbis, Winter 1964, pp. 827-832.

Ivanov, General V., "The 23rd Congress on the Military Threat and Strengthening Defense Capability," Kommunist Vooruzhennykh Sil (Communist of the Armed Forces), June 1966, pp. 8-16.

Izvestia, 1960-69.

Johnson, Lyndon B., "Commencement Address at Glassboro State Teachers College; 4 June 1968," Vital Speeches, 1 July 1968, pp. 481-483.

Kahan, J. H., "Strategies for SALT," World Politics, January 1971, pp. 171-188.

Kahn, Herman, "Why We Should Go Ahead with an ABM," Fortune, June 1969, pp. 120-121.

Kaysen, Carl, "Keeping the Strategic Balance," Foreign Affairs, July 1968, pp. 665-675.

Kolkowicz, Roman, Conflicts in Soviet Party-Military Relations, (Santa Monica: The Rand Corporation, 1963), Rand Memorandum RM-3760-PR.

_____, "SALT and the Kremlin: The Policy of Hold-and-Explore," Interplay, November 1970, p. 33.

_____, The Soviet Army and the Communist Party: Institutions in Conflict, (Santa Monica: The Rand Corporation, 1966), Rand Study R-446-PR.

_____, Matthew P. Gallagher, and Benjamin S. Lambeth, The Soviet Union and Arms Control: A Superpower Dilemma, (Baltimore: The Johns Hopkins Press, 1970).

Kosygin, Alexei, "Soviet Foreign Policy Reviewed," Survival, October 1966, pp. 320-326.

Kosyrev, Engineer-Lieutenant Colonel Y., "Weapons of Great Destructive Power," Voyennyye Znaniya (Military Knowledge), November 1964, pp. 34-35.

Kraminsky, Daniel F., editorial in Za Rubezhom (Life Abroad), 19 January 1967.

Krasnaya Zvezda (Red Star), 1960-1970.

Kriksanov, Major F., "The Problems of the Interception of Intercontinental Ballistic Missiles," Voyennyye Znaniya (Military Knowledge), July 1957, pp. 15-16.

Krylov, Marshal N. I., "Powerful Shield of the Motherland,"

Selskaya Zhizn' (Rural Life), 23 February 1968, p. 2.

_____, "Strategic Rockets," Survival, June 1963, pp. 11-18.

_____, "The Rocket Might of the Homeland," Sovetskaya Rossiya (Soviet Russia), 30 August 1969, p. 6.

_____, "The Rocket Might of the Motherland," Pravda, 19 November 1967, p. 2.

_____, "The Strategic Rocket Troops," Voyenno-istorichesky Zhurnal (Military-Historical Journal), no. 7, July 1967.

Kurotshkin, General Pavel, "The Soviet Army - A Reliable Guarantee of Peace and Security," Deutsche Aussenpolitik (German Foreign Policy), October 1966, pp. 1176-1184.

Lall, Betty Goetz, "Congress Debates the ABM," Bulletin of the Atomic Scientists, September 1967, pp. 28-32.

_____, "Gaps in the ABM Debate," Bulletin of the Atomic Scientists, April 1967, pp. 45-46.

_____, "Superiority and Innovation in U.S. Defense Forces," Bulletin of the Atomic Scientists, March 1967, pp. 11-13.

Lee, William T., "Soviet Military Industrial Complex," Armed Forces Management, May 1970, pp. 25-35.

Levine, Robert A., The Arms Debate, (Cambridge: Harvard University Press, 1963).

Lomov, Colonel General N. A., "On Guard over Peace," Mezhdunarodnaya Zhizn' (International Affairs), August 1969, pp. 10-18.

Long, Franklin A., "Strategic Balance and the ABM," Bulletin of the Atomic Scientists, October 1968, pp. 2-5.

Lorince, G., "Setback for the Soviet Marshals," New Statesman, 21 January 1969, pp. 716-717.

Malinovsky, Marshal Rodion Ya., Address to the Budapest Garrison, reported by the Hungarian press agency MTI, 22 April 1966.

_____, quoted in Sovetskiy Patriot (Soviet Patriot), 27

October 1965 from Y Yedinom staryu (In One Formation), (Moscow: 1965).

Martin, Lawrence W., "Ballistic Missile Defense and Arms Control," Arms Control and Disarmament, January 1968, pp. 61-78.

_____, "Strategic Implications of BMD," Survival, July 1967, pp. 216-219.

_____, "The Great Missile Defense Debate," Interplay, June-July 1969, p. 39.

McMahan, Richard H., "Rationales for Ballistic Missile Defense Policy," Bulletin of the Atomic Scientists, March 1965, pp. 37-40.

McNamara, Robert S., Fiscal Year 1968-72 Defense Program and Fiscal Year 1968 Defense Budget, Department of Defense monograph, 25 January 1967.

_____, Fiscal Year 1969-73 Defense Program and Fiscal Year 1969 Defense Budget, Department of Defense monograph, 1 February 1968.

_____, "McNamara's Defense Statement," Survival, May 1966, pp. 138-146.

_____, "Spectrum of Defense," Survival, January 1964.

_____, "U.S. Defense Policy, 1966-70," in Naval Review, 1966, (Annapolis: U.S. Naval Institute, 1965).

Moldauer, Peter, "The ABM Comes to Town," Bulletin of the Atomic Scientists, January 1969, pp. 4-7.

Nikolayev, N., "Before the Meetings in Helsinki," New Times, no. 46, 14 November 1969, p. 13.

"No McNamarsky Yet," unsigned news article in The Economist, 28 March 1967, p. 32.

Parmonov, V., "Missiles and Business," Sovetskaya Roosiya (Soviet Russia), 26 March 1969, p. 3.

Perlo, Victor, "Alliance of Militarists and Arms Manufacturers," Mezhdunarodnaia Zhizn' (International Affairs), September 1969, pp. 20-26.

Plyachenko, Colonel P. F., "Development of an Anti-Missile System in the United States," Vestnik Protivovozdushnoy Oborony (Air Defense Journal), February 1965, p. 18.

Pravda, 1960-69.

Quester, George H., "Missiles in Cuba, 1970," Foreign Affairs, April 1971, pp. 493-506.

_____, Nuclear Diplomacy, (New York: The Dunellen Company, 1970).

Ra'anan, Uri, "Soviet Global Politics and the Middle East," Naval War College Review, September 1971, pp. 17-27.

Rabinowitch, Eugene, and Ruth Adams, Debate the Antiballistic Missile, (Chicago: Bulletin of the Atomic Scientists, 1967).

Radio Free Europe Research Reports, East Europe and the Soviet Union.

Rathjens, George W., "Is Safeguard Worth the Risk?," Bulletin of the Atomic Scientists, June 1969, pp. 23-24.

_____, The Future of the Strategic Arms Race: Options for the 1970s, (New York: Carnegie Endowment, 1969).

_____, and G. B. Kistiakowski, "The Limitation of Strategic Arms," Scientific American, January 1970, pp. 19-28.

"Remarks by Secretary of Defense Robert S. McNamara, September 18, 1967," Bulletin of the Atomic Scientists, December 1967, pp. 26-31.

Rodberg, Leonard S., "ABM- Some Arms Control Issues," Bulletin of the Atomic Scientists, June 1967, pp. 16-20.

_____, "Limiting Strategic Technology, the Need for National Self-Restraint," Bulletin of the Atomic Scientists, November 1969, pp. 36-38.

Rogov, V., "Appeal for Peace; Who Needs the 'Safeguard' System: Melvin Laird's Recommendations," Trud (Trade), 25 March 1969, p. 1.

Romanov, Engineer-Colonel V., news article in Sovetskiy Patriot (Soviet Patriot), 7 February 1965.

Rothstein, Robert L., "Nixon's ABM: Very Thin Indeed," The New Republic, 29 March 1969, pp. 3-6.

_____, "The ABM, Proliferation and International Stability," Foreign Affairs, April 1968, pp. 487-502.

Russet, Bruce M., "The Complexities of Ballistic Missile Defense," Yale Review, March 1967, pp. 354-367.

Rybkin, Lieutenant Colonel E. I., "On the Essence of World-Wide Missile-Nuclear War," Kommunist Vooruzhennykh Sil (Communist of the Armed Forces), September 1965, pp. 50-56.

Schelling, Thomas C., Arms and Influence, (New Haven: Yale University Press, 1966).

Scoville, Herbert, "Limitation of Offensive Weapons," Scientific American, January 1971, pp. 15-25.

_____, Toward a Strategic Arms Limitation Agreement, (New York: Carnegie Endowment, 1970).

Senter, Raymond D., "Anti-Missile," Survival, May 1963.

Sergeyev, Engineer-Captain First Rank P. L., "Problems of Penetrating an Antimissile Defense," Morskoy Sbornik (Naval Digest), 9 September 1967, pp. 91-96.

Shestov, V., "Nuclear Rubicon," Mezhdunarodnaia Zhizn' (International Affairs), June 1969, p. 62.

Shevtsov, Colonel General A., "The Homeland's Mighty Shield," Voyennye Znaniya (Military Knowledge), 19 November 1968, p. 7.

Sidelnikov, Colonel I., "Concerning Military Doctrine," Krasnaya Zvezda (Red Star), 11 May 1962, pp. 2-3.

Slocombe, Walter, "The Political Implications of Strategic Parity," Adelphi Papers, no. 77, May 1971.

Smart, Ian, "Advanced Strategic Missiles: A Short Guide," Adelphi Papers, no. 63, December 1969.

Sokolovsky, Marshal V. D., Soviet Military Strategy, Revised Edition, the Rand Corporation translation, (Englewood Cliffs, New Jersey: Prentice-Hall, 1963).

_____. "Soviet Views on Modern Military Strategy," Kommunist Vooruzhennykh Sil (Communist of the Armed Forces), April 1966, pp. 64-67.

Soldatov, V., "Billions for War," Selskaya Zhizn' (Rural Life), 26 March 1969, p. 3.

Stone, Jeremy J., "Beginnings of the Next Round?," Bulletin of the Atomic Scientists, December 1967, pp. 20-25.

_____, Strategic Persuasion: Arms Limitation through Dialogue, (New York: Columbia University Press, 1967).

_____, "The Case Against Missile Defenses," Adelphi Papers, no. 47, April 1967.

_____, "When and How to use SALT," Foreign Affairs, January 1970, pp. 262-271.

Sudets, Marshal V., "A Reliable Shield," Izvestia, 5 January 1964.

_____, "How the Party Leads," Vestnik Protivovozdushnoy Oborony (Air Defense Journal), May 1966, pp. 2-6.

_____, "The National PVO at the Present Stage," Krasnaya Zvezda (Red Star), 28 March 1964.

Talensky, Major General N., "Anti-Missile Systems and Disarmament," Mezhdunarodnaia Zhizn' (International Affairs), October 1964, pp. 15-19.

Teplinsky, B., "U.S. Military Programme," Mezhdunarodnaia Zhizn' (International Affairs), August 1967, pp. 46-49.

The Institute for Strategic Studies, The Military Balance 1966-67, (London: Institute for Strategic Studies, 1966).

_____, The Military Balance 1967-68, (London: Institute for Strategic Studies, 1967).

_____, The Military Balance 1968-69, (London: Institute for Strategic Studies, 1968).

_____, The Military Balance 1969-70, (London: Institute for Strategic Studies, 1969).

_____, The Military Balance 1970-71, (London: Institute for Strategic Studies, 1970).

The International Institute for Strategic Studies, The Military Balance 1971-72, (London: International Institute for Strategic Studies, 1971).

The New York Times, 1960-1971.

The Washington Post, 1960-1971.

Thurmond, Strom, "The Realities of Military Preparedness," Vital Speeches, 1 April 1968, pp. 356-359.

Tormozov, Lieutenant Colonel I. A., "Carefully Attain and Strengthen Combat Traditions of the Soviet Army PVO Forces," Vestnik Protivovozdushnoy Oborony (Air Defense Journal), March 1966.

Triska, Jan F., and David D. Finley, Soviet Foreign Policy, (New York: The McMillan Company, 1968).

U.S., Atomic Energy Commission, Major Activities in the Atomic Energy Programs, January-December 1966," (Washington: U.S. Government Printing Office, 1967).

U.S., Congress, Senate, Committee on Armed Services, Preparedness Investigating Subcommittee, Military Aspects and Implications of Nuclear Test Ban Proposals and Related Matters, 88th Congress, First Session, (Washington, 1964).

U.S., Congress, Senate, Committee on Armed Services, Preparedness Investigating Subcommittee, Status of U.S. Strategic Power, 90th Congress, Second Session, (Washington, 1968).

U.S., Congress, Senate, Committee on Foreign Relations, Subcommittee on Arms Control, International Law and Organizations, ABM, MIRV, SALT, and the Nuclear Arms Race, 91st Congress, Second Session, (Washington, 1970).

U.S., Congress, Senate, Committee on Foreign Relations, Subcommittee on International Organization and Disarmament Affairs, Strategic and Foreign Policy Implications of ABM Systems, 91st Congress, First Session, (Washington, 1969).

Whalen, Richard J., "The Shifting Equation of Nuclear Defense," Fortune, June 1967, pp. 85-89.

Wiesner, Jerome B., "Controlling Strategic Weapons," Survival, March 1966, pp. 77-79.

_____, "The Cold War Is Dead, But the Arms Race Rumbles On," Bulletin of the Atomic Scientists, June 1967, pp. 6-7.

_____, and Herbert F. York, "National Security and the Nuclear Test Ban," Scientific American, October 1964.

Wildavsky, Aaron, "The Politics of ABM," Commentary, November 1969, pp. 55-63.

Willrich, Mason, "ABM and Arms Control," International Affairs, February 1968, pp. 228-237.

Wohlstetter, Albert, and John Craven, "Implications of Military Technology for the 1970's," Adelphi Papers, no. 46, March 1968.

Wolfe, Thomas W., "Are the Generals Taking Over?," Problems of Communism, July-August 1969, pp. 106-110.

_____, Impact of Economic and Technological Issues on the Soviet Approach to SALT, (Santa Monica: The Rand Corporation, 1970), Rand Paper P-4368.

_____, Policymaking in the Soviet Union: A Statement with Supplementary Comments, (Santa Monica: The Rand Corporation, 1969), Rand Paper P-4131.

_____, "Soviet Approaches to SALT," Problems of Communism, September-October 1970, p. 3.

_____, "Soviet Interests in SALT: Political, Economic, Bureaucratic and Strategic Contributions and Impediments to Arms Control," unpublished monograph presented to the Fifth International Arms Control Symposium, Philadelphia, Pennsylvania, 15 October 1971.

_____, Soviet Power and Europe: 1945-1970, (Baltimore: The Johns Hopkins Press, 1970).

_____, Soviet Strategy at the Crossroads, (Cambridge: Harvard University Press, 1964).

Yakubovskiy, Marshal I., "At Battle Posts," Sovetskaya Rossiya (Soviet Russia), 9 May 1969, p. 1.

Yegorov, Colonel General N. V., "Formidable and Invincible," Krasnaya Zvezda (Red Star), 19 November 1967, p. 1.

York, Herbert F., "Military Technology and National Security," Scientific American, August 1969, pp. 17-29.

_____, "The Arms Race and the Fallacy of the Last Move," Bulletin of the Atomic Scientists, June 1969, pp. 27-28.

Young, Oran R., "Active Defense and International Order," Bulletin of the Atomic Scientists, May 1967, pp. 35-42.

_____, "The Political Consequences of Active Defense," Bulletin of the Atomic Scientists, February 1968, pp. 16-20.

Yuriev, Y., "United States' 'New' ABM System," Mozhdunarod-
naia Zhizn' (International Affairs), July 1969, pp.
128-129.

Zakharov, Marshal M., "On Guard Over Peace and Socialism,"
Partiinaya Zhizn' (Party Life), September 1968, p. 13.

_____, "The Party and the Armed Forces in the Country
of the Soviets," Partiinaya Zhizn' (Party Life), Feb-
ruary 1968.

22 AUG 72
4 OCT 72
4 OCT 72
30 OCT 72
5 NOV 77

BINDERY
S10664

21818
21569
25316

Thesis
E313

Eldredge

132346

Antimissile defense:
the United States -
Soviet dialogue, 1960
to 1969.

22 AUG 72
19 SEP 72
4 OCT 72
4 OCT 72
30 OCT 72
5 NOV 77

BINDERY
S10664
DISPLAY

21818
21569
25316

Thesis
E313

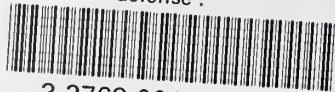
Eldredge

132346

Antimissile defense:
the United States -
Soviet dialogue, 1960
to 1969.

thesE313

Antimissile defense :



3 2768 001 89272 2

DUDLEY KNOX LIBRARY